

THE
ENCYCLOPEDIA
OF HEALTH
AND PHYSICAL CULTURE

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EDITOR-IN-CHIEF

A COMPREHENSIVE GUIDE TO THE PROPER CARE
AND COMPLETE DEVELOPMENT OF THE HUMAN BODY
WITH DETAILED DIRECTIONS FOR THE
PREVENTION AND TREATMENT OF DISEASE

INCLUDING SCIENTIFIC METHODS FOR BUILDING
DYNAMIC, POWERFUL HEALTH AND ATTAINING
A SYMMETRICAL, BEAUTIFUL BODY

ARRANGED FOR READY READING
CLASSIFIED FOR IMMEDIATE REFERENCE

IN EIGHT VOLUMES

VOLUME VIII

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THE
ENCYCLOPEDIA
OF HEALTH

VOLUME VIII

FORMS OF DISEASE AND THEIR TREATMENT

Section 1

(Continued from Volume VII)

ELEPHANTIASIS (*Barbados Leg*).—A disease common in the tropics, rare in our country, characterized by enormous swelling of certain parts of the body. The legs most often are affected, especially below the knees. Sometimes the swelling is extensive, producing great disfigurement. The disease is painless but chronic. It is due to the blocking of lymph-vessels. The resultant swelling is similar to dropsy; but usually none of the vital organs are involved and the swellings may increase to a prodigious size without endangering life.

Treatment. Complete Fast No. 2, if followed for a sufficient period, undoubtedly will give satisfactory results in this peculiar disease. Dropsical swellings of all kinds are reduced quickly by this measure, so the same results may be expected in this ailment.

Naturally, any vitality-building measures that will stimulate functional activity will be of value. If one is strong enough to take exercise of any kind, a general vitality-building routine adapted to his strength and followed out daily while continuing the fast will be of material benefit.

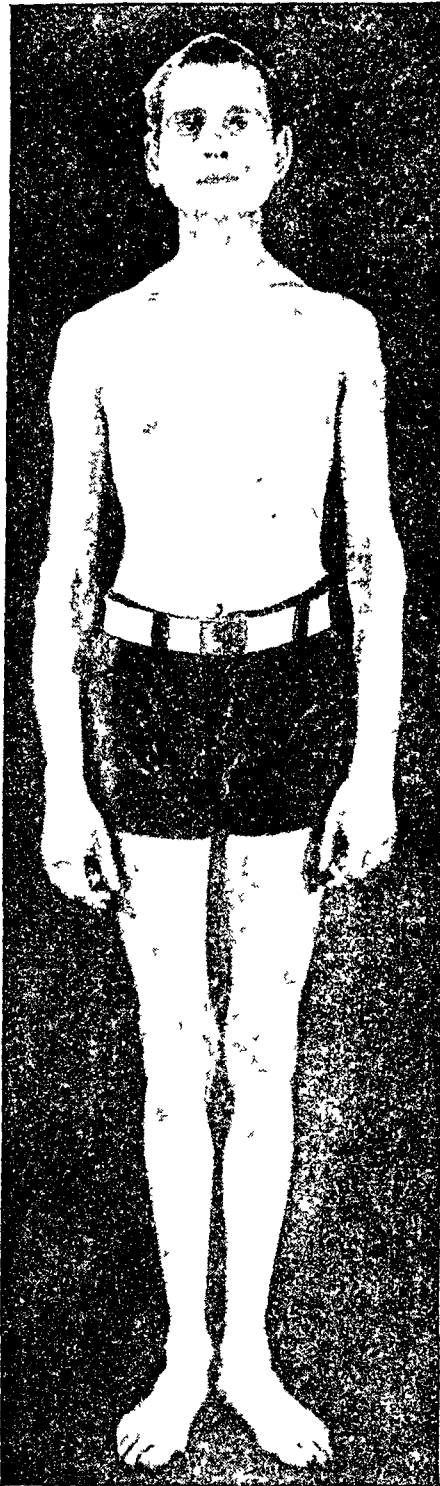
Day by day as the fasting routine is continued the swelling associated with this disease will slowly tend to reduce. Naturally, as the swelling decreases, strength should increase, and as strength is gained general exercises of all kinds should be indulged in.

The appropriate fast-breaking routine should be adopted, followed by a fruit and vegetable diet. If the patient has not the vitality to endure an extended fast in the beginning, then Alternate Fast No. 5 should be adopted, though always paying especial attention to exercises of all kinds.

Since this disease occurs as a rule in regions where good milk is not available in considerable quantities, some other diet usually will be necessary. Any of the Combination Milk Diets or Milk and Fruit Diets may be used, or Fruit and Nut Diet No. 1, or Salad Diet No. 6.

Special Manual Treatments 11 to 16 or Self-Applied Exercise Movements 1 to 6 may be used, when strength will permit. When sufficient strength is not possessed to enable one to go through these treatments, then use Self-Applied Exercise Movements 7 to 15, or, if the patient is very weak, Special Manual Movements 1

Emaciation

Emaciation,
Causes

Emaciation cases such as this are usually due to ineffective utilization of foods by the digestive organs or to a greater or less extent to a deficiency ration.

to 10 may be recommended. It is better to use the first mentioned, however, since they affect the lumbar region, thus influencing the spinal nerves controlling the swollen members. Massage of the affected part may be helpful but cannot be given vigorously.

Treatment of feet and legs by the Leg and Foot Movements described in Volumn VI also will be of great advantage.

EMACIATION. — When loss of flesh becomes so pronounced that one's health is seriously impaired, the condition is termed emaciation.

The emaciation which follows an acute attack of disease of any kind, when the ailment in question has been properly treated, is not of serious moment. With the return of appetite and digestive capacity the lost weight will be regained quickly.

When, however, thinness gradually verges into an emaciated condition the cause must lie in some more or less grave constitutional disorder. The majority of maladies of a serious or mortal nature tend to produce emaciation as the ailment gradually progresses.

This condition naturally indicates functional disorders of some kind; the blood does not contain the elements necessary properly to nourish the body. As a rule, this condition is due to defective assimilation, though, of course, it may be due to a defective condition of any of the blood-making organs. Naturally, if it is due to some special disease we must, first of all, treat the ailment which is causing the emaciation. If, how-

ever, no special disease is indicated, then, one may usually assume that the disease is due to defective assimilation or a deficiency diet; so by treating it in accordance with the instructions herewith suggested one can depend upon a radical change for the better.

Treatment. In this disease, because of the peculiarly wasted condition of the body, fasting must be employed with great care, though an abstinence from food for two to five days, even if the patient is greatly emaciated, will be of decided benefit in practically all cases. The patient should understand first of all that the stomach must be given a rest if he desires to begin a body-renovating process. After a short fast the blood-making organs, in nearly every instance, will do their work in such a manner as rapidly to improve the quality of this life-giving element.

This fast may be broken with Fast-Breaking Routine No. 1. In order to insure best results it is essential that the milk diet follow, at least for a short period, say for two to four weeks. It would be much better to continue this routine as long as the patient gains in weight. If this is not possible, then a milk and fruit diet could be adopted, beginning with Milk and Fruit Diet No. 1 for two or three days, following with No. 2. Any one of these diets appealing to the patient may be followed, or all of them may be used, each one for a day or more at a time.

Where there is a radical defect in the assimilative powers it sometimes is necessary to repeat the fast after a time, or to adopt a series of fasts. Alternate Fast No. 5 often is of special value for gaining weight, inasmuch as the body will form the habit of accumulating flesh in readiness for future fasting periods. This plan, combined with the milk diet in the intervening periods, and the other suggestions given herewith, offers one of the most certain methods of overcoming emaciation.

Special attention must be given to building up the general constitution. Select the vitality-building routine adapted to the strength of the patient and see that it is followed persistently each day. Remember, however, that while on the milk diet the patient should exercise only moderately; in fact, if the exercises were confined to the early morning, previous to beginning the diet, it would be much to his advantage.

As a rule a neutral bath of a half hour to an hour's duration should be given before retiring each night while on the milk diet.

A hot spinal pack may be given in the morning. It is important that the patient live outdoors as much as possible. Often scientific studies of the glands, blood and heart can be carried out with wonderful life-giving results.

EMBOLISM.—An obstruction or closing of a vessel by a transported clot or mass of fibrin or of other foreign material. Fibrin-

ous clots derived from the plasma or fluid base of the blood often form upon the diseased valves of the heart, sometimes elsewhere. When torn loose they are carried by the blood-stream into arteries of smaller caliber, where they become lodged, producing an embolus. An embolus also may obstruct the circulation in a portion of the brain, with the result that an apoplectic stroke may follow. (See *Apoplexy*.)

Embolism,
Treatment

Treatment. The treatment is largely constitutional in nature. If embolism should result in a stroke of an apoplectic nature, or if heart troubles should appear, the regular treatment indicated for those troubles should be followed. However, one may depend upon a material improvement in the condition of the blood-stream by adopting the general methods advocated for the treatment of numerous diseases that depend upon vitality-building for their results.

This vitality-building process should start with a fast of three to ten days, depending upon the weight and vitality of the patient. This fast may be broken by Fast-Breaking Routine Nos. 1 or 2, depending upon the duration of the fast. Milk Diet No. 1 would be especially applicable in this difficulty. After breaking the fast as directed this milk diet should be adhered to. If one is following an occupation where the ordinary milk diet cannot be followed, then Milk Diet No. 11, or the milk and fruit diet as outlined in No. 1 or 2 may be used; but one should remember that these will not be as satisfactory as the regular milk diet suggested.

Select a general vitality-building routine adapted to the strength of the patient, as a means of adding to functional vigor.

Special Manual Treatments 1 to 10 or Self-Applied Movements 7 to 15 may be used daily to advantage; more vigorous treatment such as Special Manual Treatments 11 to 16 may be adopted in case one's strength is capable of properly recuperating from it.

In case of occlusion of an important blood-vessel causing serious disturbances in any part of the body, or danger to life, the fast together with rest in bed, with the head elevated, may be advisable. Mental poise and general self-control must be exercised.

Embolism,
Local Treat-
ment

If there is serious local interference with the circulation in any part, except the head, giving rise to inflammation or a tendency to gangrene, then hot fomentations may be recommended, though in some instances alternate hot and cold wet packs or cold compresses may be more effective. The proper treatment in this respect may be determined by the comparative relief and comfort which these measures afford the patient, though hot packs usually will be indicated.

Emphysema

EMPHYSEMA.—Dilatation of the air-vesicles of the lungs. A peculiar disease of the lungs caused by chronic bronchial catarrh, asthma and certain forms of heart trouble. It also may be present

in the organism of those who perform any hard labor where the breath is held during exertion or whose occupation subjects the lungs to an excessive strain, such as glass-blowing, or playing a wind instrument. It is common in middle life and in late life, though it can develop at any age. As a rule, if it is present in children it develops from asthma, whooping cough, or chronic bronchitis. It is commoner in males than in females.

Emphysema is due directly to loss of the elasticity and contractile power of the air-vesicles of the lungs and is produced by gradual loss of the vitality of the delicate lung tissues. In consequence the lungs remain permanently more or less dilated, with proportionate loss of breathing capacity.

The main *symptom* in mild cases is labored breathing. In its acute form, cough and intense oppression of the chest after exercise are the chief symptoms. The disease often can be recognized externally by the dilatation of the veins of the throat, which stand out like bluish cords, by the thickened and strained appearance of the muscles which support the head, and by a greatly enlarged or barrel-shaped chest.

Treatment. In the case of young people who have had an acute over-distention of the lungs resulting from whooping cough or some affection of the larynx or bronchi, this condition subsides without special treatment with recovery from the causative condition. In other cases the patient, above all, must be given the out-of-door treatment, or must be supplied with air that is identical with that found out of doors. This is the first and most essential element of the treatment. When indoors, the patient must encourage the presence of circulating fresh air. If possible the causative agent should be removed.

Various methods must be adopted for improving the quality of the blood and increasing the vitality of the patient. To this end Complete Fast No. 2 may be adopted for one to five or more days, depending upon the patient's condition. If by continuing this fast the patient increases in strength and the acute and unpleasant symptoms associated with the disease disappear, as will be the case in many instances, then the fast may be prolonged accordingly. Where there is no distinct loss in strength and the pulse does not go below 55, one may rest assured that the fast may be continued without harm. Adopt the suitable fast-breaking routine, and follow with the regular milk diet suggested therein. If it is difficult or impossible on account of occupation to adhere to the exclusive milk diet, then Milk and Fruit Diet No. 1 may be used for two or three days; after which one may take his choice between Nos. 2 and 4, adopting whichever diet seems to be most palatable.

Emphysema,
General
Treatment

As strength is gained an ordinary dietetic routine may be adopted, though the greatest possible care to avoid overeating must be observed.

Have the patient carefully follow instructions day after day in a vitality-building routine adapted to his strength. This is most important, because it is general improvement and enhanced vitality that one must rely upon to build up the nervous system and overcome this disorder.

When there are acute distressing symptoms that need immediate treatment, drinking large quantities of hot water and the application of very hot packs to chest and abdomen will bring immediate relief. One can depend upon this in every instance if the patient is supplied with plenty of pure fresh air.

Following this, cold chest and shoulder packs, renewed every half hour, will be of great benefit. In case of less severe inconvenience, the hot hand-bath (immersing the hands and forearms to the elbows in hot water) will give relief through the reflex effect upon the nerves concerned. The nervous system should be invigorated by Special Manual Treatments 1 to 10 in connection with repeated hot spinal compress. If the difficulty is aggravated by a condition of general nervous excitement, then cold compresses to the head and cervical spine or a neutral immersion bath for half an hour or more will have the necessary quieting effect.

One of the most valuable exercises is that of exhaling through partially closed lips, a pipe-stem or a quill. The force used should gradually increase and at the end of expiration the abdomen should be retracted and the diaphragm drawn as far upward under the chest as possible. A vest made of elastic tissue, provided with buckles for varying the pressure, also is excellent and may be worn day and night. The obstruction to inhaling caused by this garment is of benefit, but its chief value lies in its assistance to exhalation. It is of no value, however, in those cases where the chest-wall already is practically completely "fixed" or immobile.

Encephalitis

ENCEPHALITIS.—This is an inflammation of the substance of the brain. It seldom occurs independently, but generally follows a similar inflammation of the middle ear or the mastoid process, though it may result from pyemia or injury, also. Except in those cases resulting from injury, the underlying cause is a toxemia. This condition would develop seldom if the first disease to appear were promptly and properly treated.

Symptoms. These may result either from pressure upon or destruction of brain substance, or from toxic poisoning resulting from the absorption of the products of inflammation and degeneration. Among common symptoms are headache, vomiting, dizziness, mental dulness, sometimes delirium and coma or convulsions.

Temperature usually is elevated, but sometimes is normal or subnormal. The pulse rate is slow. Among the symptoms resulting from toxic poisoning are chill, irregular fever, prostration, marked loss of weight and exhaustion.

In some cases paralysis occurs, its location being governed by the brain area involved. There may be paralysis of an extremity or of some of the special senses, resulting in deafness, or aphasia, or eye disturbances, or incoordinations and muscular weakness. If the encephalitis follows ear-disease, an inflammation of some of the veins within the cranium (a phlebitis) is likely to result. It will give rise to edema of the neck and the ear and a hardness of the jugular vein. The acute disease usually is fatal, within from eight to fourteen days, sometimes (rarely) only after thirty days. In some cases the first symptoms do not occur for months.

Treatment. The best method of combatting this disease is to institute prompt and proper treatment for any inflammation which occurs in the head region, especially those of the ears. Once the condition has developed, it will frequently proceed to abscess formation. Since the abscess cannot discharge externally, due to the bony covering of the brain, an operation usually is required. This must be accompanied by constitutional treatment for the removal of the causes. If this is begun promptly, it may be possible to avoid the operation.

Encephalitis, Treatment

Complete Fast No. 2 should be started immediately and continued until all symptoms subside. This is especially important, because if there is a tendency to the formation of an abscess, it must be absorbed or an operation cannot be avoided. Full hot enemas should be given daily even when there is fever, as they help to relieve the congestion in the brain. Cold compresses may be applied to face and neck, changing as they become warm and repeating almost continuously, except for an hour's rest three or four times during the twenty-four hours. A cold abdominal pack may be applied daily for two hours, as this also helps to relieve the congestion in the brain. If there is much fever, this pack may be replaced by cold wet-sheet packs for two or three days.

After the inflammation has subsided the fast may be broken, but it would be well to follow a very limited diet, as the too early resumption of any full diet might bring about a return of the inflammation. It would be well to take for a day or two nothing but orange juice. Then several days on all kinds of fresh fruits. Then up to five days or more on fresh fruits and green vegetables. After this it would be well to follow a diet of fruits, vegetables and some form of sour milk for about a month. Special attention should be given to raw food, and great care observed to avoid overeating.

Encephalitis, Later Treatment

Enemas are to be continued as needed, otherwise all hydriatric

treatment may be discontinued during the period of convalescence, except for the daily application of alternate hot and cold spinal compresses. After some strength has been gained the milder spinal treatments may be added. A general vitality-building routine fitted to the strength of the patient ought to be carefully adhered to. Long walks are especially important as a part of the upbuilding process.

For the treatment of *Encephalitis lethargica*, see *Sleeping Sickness*, under *Tropical Diseases*.

Endocarditis

ENDOCARDITIS.—An inflammation of the endocardium, the membrane lining the heart, is most frequently the result of rheumatism, gout, pneumonia, the poisons of venereal disease or other infectious maladies. In such cases the prior disease should be given attention. (See *Heart, Diseases of*, for methods of treatment.)

ENDOMETRITIS.—See *Uterus, Diseases of*.

Enteritis

ENTERITIS (*Inflammation of the intestines*).—Inflammation may affect either the small intestines (*enteritis*), or the large intestine (*colitis*). (See *Intestines, Diseases of*.) The causes are much the same in both cases, so the treatment is similar. An acute enteritis practically always results from dietetic errors, especially overeating or the use of spoiled food. It also may result from drinking polluted water, or from the injection of mineral poison. Typhoid fever, dysentery and cholera, and cholera infantum are special forms of bowel inflammation. (See diseases so listed.) Most acute cases of enteritis are not so severe as these other diseases and respond more readily to treatment.

Symptoms. There is marked watery and mucous exudation from the walls of the intestines. Usually, but not always, the stools are frequent, slimy and soft, later becoming liquid. They are greenish and usually contain undigested food. There are abdominal pains, colicky in character and some fever. The sufferer loses weight rapidly, the appetite is impaired, there is extreme weakness and often soreness of the rectum. If severe, there may be gaseous distention of the abdomen, sunken eyes, pallor, coldness of the extremities and clammy perspiration.

Treatment. The treatment of simple enteritis is not at all complicated. It consists merely of thoroughly cleansing the alimentary tract and in giving it a rest of sufficient length to allow the inflammation to subside and for the damage to the cells to be repaired. The symptoms indicate that nature is doing everything possible under the circumstances to remove the causes of the trouble so the treatment should be designed to assist.

Complete Fast No. 3 should be immediately instituted. Hot water freely drunk is especially indicated, as it is very cleansing and helps to remove the offending waste material from the intes-

tines. The heat of the water also helps to relieve the colicky pains usually present.

Give small warm enemas in sections; first, left side; second, right; others in knee-chest position; each to be evacuated when any pain starts and the next given. Use a teaspoonful of baking soda to each quart of water. Several hours after the enema is given a cold abdominal pack may be applied sometime during the day and allowed to remain on for two hours. If there is much pain or if the patient's reactive powers are poor, hot abdominal packs may be used instead, maintaining heat with a hot-water bottle. Complete rest usually is advisable while the acute symptoms are present. The employment of these simple measures should soon restore a normal condition.

Enteritis,
Treatment

The fast usually will not need to be continued longer than five to seven days, after which Fast-Breaking Routine No. 2 may be used, following with Cereal Broth Diet No. 2, 3, 4, or 5, then, if at all possible, with Milk Diet No. 1. The milk diet is especially helpful after the fast in these cases, because it supplies adequate nourishment and is usually non-irritating. Effort should be made to use the milk diet for at least a week after the fast, preferably for several weeks. In some cases any form of sour milk will be as beneficial as sweet milk and somewhat more easily taken, though usually the sweet milk will agree satisfactorily.

Enemas should be taken, when necessary, until the bowels move naturally. If necessary to employ solid foods after the fast-breaking routine and broth diet, the diet should be very simple, only two or three articles being used at each meal and thorough mastication being practiced. Plenty of water should be taken between meals, boiled water being used if the source of the supply is not known to be uncontaminated. Strictly natural foods should be used. The patient also should be extremely careful of general habits of living. As strength is gained a vitality-building routine adapted to the needs of the patient should be selected and followed each day.

ENURESIS (*Urinary incontinence*).—See *Bed-Wetting*, and *Incontinence of Urine*.

EPIDIDYMITIS (Inflammation of a certain part of the testicle called the epididymus).—This condition usually is a complication of an acute attack of gonorrhea, though it also may result from a chronic condition of the same disease, rarely from other cause.

Epididymitis

The attack, which often is rapid in onset, begins with a swelling of the epididymus, intense local pain and much heat. This may persist for weeks and functional disturbance follow, sterility being a not infrequent consequence.

In severe cases the swelling is likely to terminate in suppura-

tion, with the appearance of a fistula, becoming tuberculous in character in some instances.

Epididymitis, Treatment

Treatment. The treatment that can be depended upon to bring almost immediate relief in this difficulty consists of alternate hot and cold sitz-baths. If you have not the necessary conveniences for taking these sitz-baths, then use two wash tubs, in the manner described in *Water and Health* (Vol. VI, Sec. 2). Remain in the hot bath until the hips and adjacent parts are thoroughly heated, and then in the cold until the tissues coming in contact with the cold water have been thoroughly chilled. As a rule three or four minutes in the hot water, and one or two minutes in the cold water, will be sufficient, though from three to five changes should be made, always using the cold water last. This treatment should be adopted immediately upon the first appearance of the symptoms. L:5k73, N 30.8 71459

In cases where the pain is severe the patient may remain in the hot sitz-bath for some time (fifteen to thirty minutes or even longer). Hot Epsom salts compresses also may be applied at other times, or heat may be provided by a therapeutic lamp. When the pain is not unusually severe cold cloths may be applied with probably more satisfactory results.

Diathermia offers most agreeable relief in this condition. So, also, does mild galvanism followed by gentle massage. Quartz, carbon-arc or infra-red lamp irradiations, alternating with radiant light and heat irradiations, also give prompt and decided relief. All these help to cut short the attack.

Great relief can be obtained by applying a proper suspensory bandage that supports yet exerts no upward pull upon the scrotum. The "T" bandage (See under *Compresses* in *Water and Health*, Vol. VI, Sec. 2.) worn at night and, if desired, for several hours during the day, will be of value.

Constitutional treatment is essential. When constipation is present, the bowels should be thoroughly relieved with a full enema. Complete Fast No. 2 should be adhered to while the acute symptoms are in evidence. These measures are a very important part of the treatment. The water treatment will bring about results of a satisfactory nature even if some wholesome food be taken; but one can depend upon securing far more rapid results if the appetite is restrained entirely and the patient drinks freely of water. This water may be flavored with fruit-juice or a small quantity of honey, provided it is not palatable otherwise. It is better, however, if it can be taken without flavoring.

As the patient begins to convalesce a general vitality-building routine for increasing the energies and stimulating the functional activities of the body will be of very great advantage. J

EPILEPSY.—A condition in which attacks of unconsciousness occur, with or without convulsions. When the attack of unconsciousness is momentary, with no convulsions except sometimes a slight rigidity, it is called *petit mal* or *minor epilepsy*. With prolonged unconsciousness and convulsions, *grand mal* or *major epilepsy*. When the convulsions are localized with or without loss of consciousness, *Jacksonian epilepsy*. The onset of epilepsy is most common before the fifth year. It rarely develops after thirty years, except as the result of some accident or severe shock. In children, both sexes are about equally affected, but in later life it is more common in men than in women.

petit mal
Grand

Epilepsy

There frequently is a family history of epilepsy, insanity, or nervous disease. It occasionally follows infantile paralysis. Although some investigators are still searching for the germ of this disease, others have come to the conclusion that it is a disease dependent upon a toxic condition of the alimentary tract. Most epileptics are voracious feeders, and generally subject to constipation. There probably always is an underlying weakness of the nervous system, and in some cases there doubtless is an unbalance of internal glandular secretions. But the toxemia is the cause of the periodic attacks, which may occur every day, every week, or every few months.

Premonitory symptoms of the seizures (not always present) are headache and dizziness, with strange sensations called the *aura*, such as a current of air, or a stream of water flowing over the body, noises, odors and flashes of light.

Epilepsy,
Symptoms
Major

Attacks of *grand mal* comprise three stages: (1) The *tonic* stage. In this stage the patient becomes stiff and rigid, with head retracted and usually rotated to one side. The eyes also usually are turned to the same side. The elbows and wrists are bent upward, fists clenched, teeth set, breathing suspended and respiratory muscles tense, pupils dilated, and the face becomes bluish. This stage lasts but a few seconds.

(2) The *clonic* stage immediately follows the first stage with twitching, and rapidly passes into severe convulsions. The face, head, eyes, body and all the limbs may be affected. Often the tongue is bitten, and the blood, mixing with the saliva, appears as a bloody froth on the lips. As breathing recommences the face becomes more natural. Respiration may be noisy, the pulse is rapid and a cold perspiration covers the body. Frequently urine is voided involuntarily. The spasms gradually lessen in number after a few minutes. Then follows the coma stage.

(3) The stage of *coma*. Unconsciousness supervenes, the body becomes limp, the pupils again are normal, and the breathing is deeper. The patient falls into a deep sleep before consciousness

fully returns. A period of exhaustion follows upon awaking from the sleep, with some headache and general mental confusion.

In *petit mal* the attack is very transient; there is unconsciousness but no convulsion. There are fixed expression of the face, pallor, dilated pupils. The patient may not fall and may recover and continue what he was doing before the attack without realizing that he has had a seizure.

The frequency of epileptic attacks varies. Some patients do not have more than one attack in a year, while others may have several attacks every day. The seizures often come on at night during sleep (*nocturnal epilepsy*). An epileptic, however, usually has all of his attacks at the same hours of day or night, as the case may be. The disease is very chronic.

Epilepsy,
Treatment

Treatment. No treatment known will do as much for epilepsy as will natural methods, if a long enough time is allowed the patient to get well. Usually the patients taking up natural methods are filled with bromides and other nerve-depressing drugs.

First of all the patient must be in surroundings where he is away from the temptation to eat improper foods or too much food. Next, a few days on a fruit diet, using orange or grapefruit preferably, should be followed. This may continue for five to seven days. This will cleanse the alimentary tract and give the body a chance to catch up with its work of elimination. In some cases the attacks cease as soon as the fruit diet is taken up. Any other acid fruit in season may be used.

The milk diet should follow the fruit diet, taking a glass of milk every two hours on the first day, every hour on the second day, and every three-quarters hour for twelve hours on the third day and thereafter. It is absolutely essential that the bowels move every day. If not, an enema must be taken. If milk gives rise to gas or is otherwise disturbing, a normal solid food diet should be substituted, using plenty of raw foods and avoiding overeating.

There is on record one case, that of a physician, who was cured by the milk diet and who lived on milk for seventeen years thereafter, free from attacks.

When the patient has been free from attacks for some time the milk should be taken only half a day and an evening meal taken, consisting of vegetables, sweet fruits, whole wheat bread and nuts. Great care must be taken to masticate thoroughly and not to overeat. A number of repetitions of the fruit diet may be required.

Systematic exercise is essential. When the energy is spent in physical exercise there is less likelihood that enough excess will be stored up to bring on these "explosions." Active outdoor work, such as gardening and farm work, are especially beneficial. The epileptic usually is sluggish in habit, and therefore needs active

exercise, also cold bathing. A cold sponge bath or a shower should be used daily.

Sufficient sleep and rest must be secured, as the nervous system can in no other way be restored to tone. Bad habits which devitalize the body must be stopped at once. Deep breathing and outdoor sleeping, as well as frequent walks in the open, are essential. Even though the attacks continue after beginning this treatment, do not be discouraged, as it takes time to right the abnormalities of years.

Appropriate stimulation of the nervous system will be of special benefit in combatting this disorder. With this end in view Special Manual Treatments 1 to 16 are advised, whichever the patient has strength for; or, if he cannot enjoy the advantage of an intelligent assistant, Self-Applied Exercise Movements 1 to 15. In connection with all these treatments the hot towel application to the spine should be used.

Rectal dilation, also vaginal or urethral dilation, will often cause the attacks to occur much less frequently, as a rule, and also will reduce the severity of the attacks. Specific spinal manipulation, particularly of the cervical region (atlas chiefly) is effective treatment in many cases. Phimosis in males and interference with menstruation in females may bring on attacks, hence the correction of any such abnormality should be the chief aim in such cases. In an occasional case there is a definite gland dysfunction which will or may require organotherapy for best results—in connection with natural therapies, of course.

For convulsive seizures arising from causes other than epilepsy see *Convulsions*, *Eclampsia*, and *Uremia*.

EPISPADIAS.—See *Hypospadias*.

EPISTAXIS.—See *Nosebleed*.

ERUCTION.—See *Belching*.

ERUPTION.—A rash, or an outbreak of the skin, sometimes attended by redness, and sometimes also by elevation of the skin surface. There are many forms of skin eruptions, including macules, papules, vesicles, pustules, blebs, bullæ, ulcers, etc. However, it does not matter what particular appearance the eruption presents; it is always a form of elimination. This is true even of those eruptions resulting entirely from external irritations or poisoning, such as poison-ivy. The latter condition may respond to local treatment if this is promptly applied, but most skin eruptions require constitutional treatment, because the extra elimination would not be necessary if there were not a general toxemia resulting from wrong habits of living.

Symptoms. Macular eruptions are reddish or other colored spots, not raised above the surface of the skin. They may be large or small, round or irregular in shape.

Papular eruptions are slightly raised above the surface of the skin; they may be the same color and shape as the macules, and contain no fluid.

Vesicular eruptions are like small blisters. They are filled with a clear fluid.

Pustular eruptions are like vesicles with the exception that they contain pus.

Purpuric eruption is a hemorrhagic eruption appearing in or beneath the skin. It consists of variable shaped, purplish spots containing blood.

Erythema is a reddish color spreading over a greater or lesser area of the skin. It may be inflammatory in character. For other eruptions see *Skin, Diseases of*.

The treatment for the various eruptions will be found under the name of the disease in which the eruption manifests. See *Bed-Sores, Carbuncles, Chicken-pox, Dermatitis, Erysipelas, German Measles, Hives, Impetigo, Measles, Prickly Heat, Scarlet Fever, Shingles, Smallpox, Water Blebs, etc.* Also see *Skin, Diseases of*, and *Poison-Ivy* in *First Aid in Accidents and Disease*, (Vol. VII, Sec. 5.)

Erysipelas

ERYSIPELAS (*St. Anthony's Fire*).—An infectious inflammation of the skin in which the area of the inflammation is sharply defined. While the fundamental cause of this disease is general toxemia with lowered vitality and resistance, the particular symptoms seem to be due to the activities of a special germ, the *Streptococcus erysipelatis*. The existence of wounds or abrasions of the skin or inflammation of the nasal passages which make infection easy are predisposing causes.

Erysipelas, Symptoms

Symptoms. The symptoms of this disease are at first malaise, chills and fever. These are followed by the characteristic features, which are swelling, thickening and tenseness of the skin at the point of infection, with edema, giving it a brawny feeling. This is accompanied with redness and heat. This redness generally begins on the cheeks or over the nose or at the site of a local abrasion. The symptoms are all well marked and usually develop within twenty-four hours.

As the eruption extends to other parts the parts first affected lose their redness and the swelling diminishes. In some cases blisters appear and the glands of the neck, as well as the neck itself, become swollen. The eruption spreads in every direction by a pushing on of a definitely marked red margin. With the progress of the disease delirium may follow and if so the case usually is very critical. This does not occur, however, except in severe cases. In some cases meningitis occurs as a complication. As a rule the symptoms last for five days to a week or ten days.



PLATE 100. In erysipelas, a clear line of demarkation is found between the inflamed and the normal portion of the skin.

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Treatment. Since this disease is accompanied by fever and other general symptoms, the need for constitutional treatment is plainly indicated. Complete Fast No. 3 should be immediately instituted at the first sign of trouble and continued until all inflammation has subsided. The water used for drinking may be either hot or cold, preferably the former.

A full hot enema should be given daily during the fast. If the results from the first two enemas are good, the quantity and the temperature of the water may be somewhat reduced thereafter.

A cold wet-sheet pack may be administered daily, especially if there is fever. This is very important; but if for any reason it is not available, a hot Epsom salts bath may be taken for ten or fifteen minutes in order to produce free perspiration. A cold towel should be placed about the head while in the bath. If the fever is very high these baths should not be given. Some arrangement should be made for at least abdominal packs, if not a general pack. The patient should rest in bed and should be supplied with plenty of fresh air.

Strict cleanliness is to be observed and antiseptic washes, such as peroxide of hydrogen, boric acid, or salt solution may be used. Buttermilk compresses may be used with good results also, the affected area being kept covered with cheese-cloth or similar light cloth kept saturated with buttermilk. Blue or purple light, especially blue light, will have a soothing effect. A hot-air douche directed to the inflamed region for thirty minutes to an hour two or three times a day usually will aid rapid recovery. If large surfaces are involved a hot-air cabinet bath may be used. Care must be observed not to scratch the affected parts. If there is much itching or irritation the application of cold buttermilk or cool unsweetened grape juice compresses will be found helpful and soothing.

After the fever and inflammation have subsided the fast may be broken, but it is well to do so very gradually. Three or four days should be devoted to nothing but fresh fruit, gradually increasing the amount and variety. On the first day it would be well to take orange juice only. After the fruit diet Milk Diet No. 3 would be advisable, employing some sour milk if desired. This should be continued until there has been full recuperation.

If for any reason the full diet cannot be continued this long, Milk and Fruit Diet No. 2 may be employed. Activity, especially walking, is to be resumed as rapidly as the patient's strength will permit and a suitable vitality-building routine should be followed religiously. It would be well to take a cold-sheet pack or a hot Epsom salts bath twice during the first week while on the milk diet and once the following week. Enemas should be continued as necessary until the bowels move normally and regularly.

This disease sometimes has a tendency to recur, especially if no attempt is made to remove the underlying causes. However, if the above outlined treatment is employed promptly, especially if the fast is continued until all symptoms subside, there should be no recurrence of the trouble. When symptoms do recur, apply the same treatment again. Special attention to building up the vitality after an attack will help to prevent future trouble.

Eustachian
Tube
Catarrh

EUSTACHIAN TUBE, CATARRH OF.—The Eustachian tube is a funnel-shaped channel leading from the posterior nares or nasal passage into the middle ear. A severe cold, by the internal catarrhal condition, may produce a temporary occlusion, thus leading to deafness. An inflammatory condition of the middle ear when it subsides also is likely to leave the tube in a more or less catarrhal condition. (See *Ear, Diseases of*, and *Catarrh*.)

Treatment. Catarrh is not a disease, but a symptom of a constitutional condition; namely, general toxemia. Therefore, the treatment of catarrh in the Eustachian tube would be almost identical with that advised in catarrh of the nose and the throat. The only difference would be that in the treatment of a difficulty of this kind a more strict routine usually is required. In other words, the fast should be materially lengthened, and the diet should be more limited in character. If the condition is not of too long duration, the deafness can be remedied in practically every case. Some cases of long duration have been cured by the methods herein given. The writer knows a physician whose Eustachian tube catarrh cleared up completely after one week of absolute fasting, except drinking water.

In connection with the special treatment for blood purification a general vitality-building routine, of course, should be adopted and adhered to strictly day after day.

Eustachian
Tube
Catarrh,
Treatment

The special sense of hearing is one of the most valuable we possess. We can rest assured of a definite and permanent cure of this very serious difficulty when caused by catarrh of the Eustachian tube, when the disease has not continued too long, if we will follow a strict natural treatment program for a period necessary to purify the blood and thus remove from it the causative poisons.

Some excellent procedures for helping to open up the Eustachian tubes and for reducing the local catarrhal condition and the deafness are: (1) While firmly holding the upper part of the ear pull steadily upward, then forward and backward while pulling upward; (2) place the first or the second finger, reinforced with the other, in the notch between the angle of the jaw and the mastoid process (immediately below the ear) and draw the fingers slowly downward to the side of the Adam's apple while pressing firmly throughout the movement; (3) lather the palms well, place over the entire ears,

pressing firmly, then suddenly release and repeat as long as the lather is effective; (4) press the cartilaginous projection in front of each ear-opening into the ear opening with the ball of the thumb, then rapidly vibrate inward and outward; (5) place the heel of the hand against the chin and open the mouth while resisting with the hand. Repeat several times.

EXCITEMENT, NERVOUS.—Disordered emotional activity and nervous overactivity occur chiefly in nervous patients, though they may occur in others at times when there have been excessive uses of nervous energy and loss of sleep. The condition usually requires no special treatment other than rest. Quiet, heat to or pressure along the spine, and neutral immersion baths should be employed in most cases, to hasten improvement and to make the patient more comfortable during the progress. If the condition becomes extreme it is called *hysteria*, which see for treatment. Baths at 94 to 98 degrees for 20 to 30 minutes are advisable.

Excitement,
Nervous

EXOPHTHALMIC GOITER.—This disease, also known as Grave's Disease, Basedow's Disease, and Parry's Disease, has for its principal symptoms enlargement of the thyroid gland, more or less protrusion of the eyeballs, tremors, especially of the hands and the upper extremities, and rapid heart-action. The pulse runs from 100 to 150 or more a minute, though regular in character. Slight exertion causes marked increase of the heart-beat. There often is a quite perceptible pulsation in the neck, extreme nervousness, anemia and flushing of the face.

Exophthal-
mic Goiter

The malady frequently occurs in several members of the same family and it often is preceded by either severe disease of some kind, great mental strain, or a condition of general debility. It develops slowly, and though difficult to recognize in its early stages, easily becomes apparent later by the prominence of the white of the eye caused by protrusion of the eyeballs. As the complaint progresses, serious mental and nervous symptoms may appear. These, when neglected, may terminate in death. This disease greatly predominates in the female sex, some investigators giving the percentage as ten women to one man.

Treatment. All of the dangerous symptoms associated with this disease may disappear under the influence of natural methods of treatment. This ailment is a disease of the blood; therefore a process essential for detoxifying and strengthening the entire physical organism must be adopted. The first requirement, therefore, is a rigorous fast, preferably Complete Fast No. 2, adhering to the fast as long as it is not productive of unusual weakness—for as long as one is able to be up and around, provided the pulse does not go below 40 or does not remain much beyond normal.

If one possesses normal weight and fair vitality, the fast may be

continued for ten to even twenty days. The especially gratifying feature of fasting for this ailment is the almost immediate cessation of many of the unpleasant symptoms. Day by day as the fast is continued a gradual improvement will be noted and, therefore, as a rule it is advisable to continue the fast as long as possible without serious loss of strength. Small cool enemas daily and colonic irrigations twice weekly will remove one of the main sources of infection.

Then follow the instructions found in the fast-breaking routine adapted to the particular length of the fast, going on the milk diet as suggested. If it is impossible to go on the strict milk diet, then Milk and Fruit Diet No. 2 or 3 may be used, though remember that an exclusive milk diet probably would be more advantageous in practically every case.

If the fast is not continued very long it would be exceedingly advisable to adopt a limited diet thereafter for two or three days. This diet may be selected from Limited Diet No. 5, No. 14, Fruit Diet No. 5, or Salad Diet No. 5 or No. 6 without nuts, at first, these later to be added.

Special Manual Treatments 1 to 10 may be used to advantage in this ailment, and one may depend on more satisfactory results if they are taken daily. These treatments may be given even while the fast is being continued. Invigoration of the nervous system is exceedingly important, but over-stimulation must be avoided. Specific spinal manipulation, usually of the fifth to seventh cervical vertebræ, and concussion of or the sinusoidal electric modality to the seventh cervical, are excellent adjunctive treatments. Infra-red irradiation for twenty minutes daily, followed by artificial sunlight irradiation according to pigmentation, also is of much value. Brief close irradiation (one inch from the skin) by a water-cooled mercury-arc lamp, once a week, also will have a favorable effect.

When following the milk diet moderate exercise, including walking, may be indulged in before beginning the diet in the morning. It is important not to carry the exercise beyond the limits of a moderate fatigue. There should be no sense of nervousness or trembling after the exercise. If one or other of these results, the amount of exercise should be reduced or it should be confined to walking. Aside from this amount of exercise, the patient should relax as much as possible.

After discontinuing the milk diet, or after improvement is noted when on any other diet, select a general vitality-building routine adapted to the strength of the patient and follow it out daily. The greatest possible care must be used to avoid overeating, as a prominent contributing cause of this disorder is toxemia, which always is produced by overeating. There is no particular harm in taking large quantities of milk, as it seems to flush the body

Exophthal-
mic Goiter,
Treatment

Exophthal-
mic Goiter,
Diet in

with a superior quality of nourishment, materially assisting in the cure of the disease. Other foods, however, under such circumstances should be used with extreme moderation. The less one can eat and keep up strength, the more quickly will be the recovery.

The patient should live out of doors if possible, or at least should have all windows wide open when indoors. Country life is to be especially recommended in connection with this disease. Sleep is important and the patient should get as much of it as possible.

EXPECTORATION.—Mucus or fluid from the lungs and air passages, expelled by coughing and spitting; the act of spitting. See *Bronchitis*, *Cough*, and *Tuberculosis*.

Expectoration

EYE, DISEASES OF.—The eye probably is the most delicate of all of the organs of the human body. Owing to its exposed position it is readily subject to injury. It also is subject to many diseases, both acute and chronic. The eyelids, conjunctiva, cornea, iris, lens, muscles and structural tissues of the organ all are susceptible to various ailments. Many of these are of common occurrence, while others are comparatively rare. Some of the rarest conditions need be only mentioned.

For convenience, the various diseases of the eye may be divided into external, or those diseases affecting the outside of the eye, and internal, or those diseases involving the inside of the eye.

Eye Diseases

Of the *external diseases*, conjunctivitis is the most common. It may be catarrhal, follicular, purulent, diphtheritic, croupous, phlyctenular, or granular. A foreign body in the eye, while not a disease, causes more distress than do some diseases. There also are several forms of growths which may occur on the outside of the eye. The cornea may be affected with inflammation (*keratitis*), by ulceration, by opacities, etc. The outer coating of the eye (the sclera) may be the seat of inflammation (*scleritis*); the choroid coat and the retina also may be the seat of disease. Of the *internal affections* of the eye the most important are *iritis* or inflammation of the iris, *glaucoma* and *cataract* (which see).

Catarrhal Conjunctivitis is simple catarrh of the eye. This ailment is exceedingly common in large cities, and is largely the result of external irritants, such as dust and smoke particles. It is comparatively harmless. There are swelling and intense reddening of the conjunctiva, often swelling of the eyelids, increased secretion, causing constant watering of the eye. This secretion, at first watery, later becomes thicker and mucoid and finally purulent or mucopurulent. There are itching and smarting of the lids, with heat and a feeling as though there were particles of sand in the eye. Also there is some blurring of vision. All the symptoms become worse toward evening. The eyelids are more or less glued together in the morning. The disease, however, clears up in a few days.

(Eye Diseases) Conjunctivitis



In the use of the eye-dropper, the procedure is to insert drops in the outer corner of eyes so that they will run across to the inside corner and be carried away through the nasal ducts.

Chronic catarrhal conjunctivitis presents similar though less intense symptoms than the acute form. It may last for months or even for years.

Follicular conjunctivitis shows a variable number of small round or oval pinkish bodies each about the size of a pinhead on the lower

folds where the conjunctiva covers the inner portion of the lid.

Croupous conjunctivitis shows a deposit of an exudation on the surface of the conjunctiva.

(Eye Diseases)
Trachoma

Granular conjunctivitis (*granular lids; trachoma*). This is a chronic form of the disease accompanied by a thickening of the conjunctiva and the formation of follicles or granules. It is common at all ages and usually affects both eyes. There are dread of light (photophobia), watering, itching and burning, a sand-like feeling and disturbances of vision. There may be swelling of the lids. There also is a mucopurulent discharge. Trachoma is considered to be contagious, through the secretion which runs from the eye. The disease spreads rapidly in schools, asylums, prisons and similar institutions where people are more or less confined. It is one of the diseases which bar admission of aliens to this country.

Purulent conjunctivitis is found in adults and in children. It generally is caused by gonorrhea and when it occurs in the newly born it is because of contact of the infant's eyes with the infected vaginal secretion of the mother. Its symptoms are swelling, redness and tenseness of the lids, redness of the conjunctivæ, a profuse secretion at first watery but later changing to a thick yellow pus. This condition may affect one or both eyes. It is a very grave condition, as it frequently causes blindness from ulceration and possible rupture of the cornea.

(Eye Diseases)
Inflammation of Cornea

Inflammation of the cornea (*Keratitis*) may be simple or purulent in nature. It may result from general toxemia or infection, as a complication of an acute fever disease or of syphilis or tuberculosis.

It presents the following features: The cornea becomes dull, with diminution of its transparency, an infiltration of the corneal structure which later may be entirely or partially absorbed or terminate in suppuration with the formation of an ulcer. There are pain, dread of light, watering, interference with vision, and sometimes perforation of the cornea by ulceration.

Scleritis, or inflammation of the sclerotic coat, gives severe pain, tenderness, dread of light, profuse watering of the eye and sometimes increased tension of the eyeball.

Iritis, or inflammation of the iris, may be caused by many different constitutional conditions, such as rheumatism, syphilis, gout, gonorrhea, diabetes, scrofula, tuberculosis, sepsis, etc. It may also arise from no specific cause. The iris appears altered; it seems swollen and dull, its color changes to greenish in blue eyes, and to a muddy color in dark ones. The pupil is contracted, sluggish and irregular, the last condition being due to adhesions between the back of the iris and the front capsule of the crystalline lens. There are piercing pains just above the eye, dread of light, lachrymation and interference with vision. The course of this disease may be acute, lasting some weeks, or chronic, lasting months. Recovery may be complete, but complications may ensue which may be serious as regards the preservation of the sight.

(Eye Dis-
eases)
Iritis

Retinitis, Acute. The technical term for an acute inflammation of the retina or nerve of sight located internally in the back of the eyeball. It practically never occurs independently, but generally results from inflammation in some other part of the eye or from some systemic abnormalities, such as syphilis, diabetes, kidney disease, etc. The fundamental cause, therefore, is general toxemia resulting from wrong habits of living, though injury, great exposure or over-use of the eyes may be exciting causes.

(Eye Dis-
eases)
Retinitis,
Acute

Symptoms. The symptoms of acute retinitis are diminution in vision, varying with the extent and severity of the inflammation, alterations of the shapes of objects seen, a feeling of discomfort in the eye, and sometimes dread of light, though there is little or no pain. In some forms of retinitis there may be annoying flashes of light, night blindness and contraction in the field of vision.

Treatment. Since the inflammation of the retina is chiefly due to some other abnormality, the treatment should be directed toward the causative condition, in addition to the measures suggested later.

Choroiditis.—Inflammation of the choroid or vascular coat of the eye may accompany inflammation of other parts of the eye, especially the iris and the ciliary body. It may be due to general diseases, syphilis, tuberculosis, gout, injury with infection, severe infectious fevers, and high myopia. A general toxemia, of course, underlies the condition, because it underlies the conditions with

(Eye Dis-
eases)
Choroiditis

which it is associated or which presumably cause it. The treatment is constitutional and local, as follows:

Treatment. The treatment of diseases of the eye accompanied by inflammation is divided into treatment of the two classes of these diseases, acute and chronic.

In *acute cases* the fasting routine will assist very materially in bringing about recovery. In most cases, Complete Fast No. 3 would be best for this purpose. This fast may be continued for several days, or until the discharge has ceased or nearly ceased. The eyes should be cleansed thoroughly several times a day with a fairly strong solution of salt and water, either using an eye-cup or by immersing the face in a bowl of water in which a small handful of salt has been dissolved, then opening and moving the eyes. Mild solutions of boric acid or sodium baborate in rose water may be used instead of the salt solution.

In some instances a mild antiseptic wash is advised, boric acid usually being preferred. This is especially indicated where one's general physical condition is not of a nature to expect quick results in the body-purifying process. Almost any druggist can supply an antiseptic wash that would be suitable. This wash may take the place of the eye-bath.

Any general routine that one can adopt with a view of increasing functional activity and thus improve the general health during this acute attack naturally will be to his advantage. Exercises of various kinds, long walks and any means of actively arousing the circulatory system and depurating functions will materially increase the speed of recovery.

The above instructions more especially refer to inflammation of the eye, accompanied by a discharge of pus or mucus. Often on arising in the morning the eyelids will adhere to each other because of the sticky mucus or pus discharged during the night. This will require the wash referred to, either of salt water, boric acid or other mild antiseptic material.

Chronic inflammations of the eye should be treated constitutionally. It will be of advantage to cleanse the eye once or twice daily with an eye-bath, as described; but beyond this one can expect results only as the eyes respond to constitutional up-building, though eye exercises will help. (See *Beauty and Personality*, Vol. V, Sec. 9.)

In beginning this process it would be well to follow complete Fast No. 2 for two to five days, then adhere to the instructions given in Fast-Breaking Routine No. 1. If at all possible, it would be much better to use the milk diet thereafter, at least for a short period. When this is difficult, then Milk and Fruit Diet No. 1 may be followed for two or three days, after which one may take No. 2; in fact, these two diets may be used alternately for one day each, if

Eye Dis-
eases, Treat-
ment of
Acute

Eye Dis-
eases, Treat-
ment of
Chronic

found to be appetizing. If for any reason this diet is difficult to follow, then Combination Milk Diet No. 19 or 20 may be used, as the appetite may dictate.

Select the general vitality-building routine adapted to the strength of the patient and carefully follow the instructions outlined therein day after day. Outdoor life and plenty of sleep are to be insisted upon. Special Manual Treatments 1 to 10 or Head and Neck Movements 1 to 11 no doubt would be of value, so one of these treatments may be given to advantage each day.

Any straining of the eyes should be avoided in acute and chronic diseases of these organs. One should rest the eyes as much as possible, as regards reading and work that requires close application. It usually is not necessary to keep the eyes away from the light, except where there is pain or discomfort in their exposure. This is a matter easily determined by the patient. A glaring light or its reflection, even on the pages of a book, a newspaper or a magazine, should be avoided. Often it is advisable that the eyes be shielded. Green is the best color to use for any eye-shield.

EYELIDS, DISEASES OF.—*Blepharitis*. This is the name for inflammation of the eyelids. In the *non-ulcerative form* the symptoms are swelling and reddening of the margins of the lids, with the formation of numerous whitish scales at the base of the lashes. The eyelashes frequently fall out but are replaced later. In the *ulcerative form* the edges of the lids are reddened and swollen and present yellowish crusts which glue the lashes and lids together. On removing the crusts small ulcers that bleed readily are seen about the attachments of the lashes. In case the lashes fall out as a rule they are not replaced, because of the destruction of hair-follicles. In both forms of blepharitis there are likely to be considerable itching, soreness, sensitiveness to light and ocular fatigue. Complications of this disease are conjunctivitis, stys, thickening of the margin of the lid, and many other forms of disfigurement. Simple hygienic care, rest of the eyes, and eye-baths of salt-water or boric-acid solution usually suffice to cure.

Edema, or dropsy, of the eyelids is common. It may be inflammatory, constitutional, or due to an injury, an insect bite or a sting. The necessary treatment is that for the underlying condition.

Sty (Hordeolum) is a circumscribed acute inflammation due to infection of one of the sebaceous follicles of one of the lashes. There is a red swelling at the margin of the lid, with pain and tenderness and the formation of pus, which points and discharges. Eyestrain is the usual exciting cause, general toxemia and depletion the underlying cause. Treatment is given in sufficient detail under *Sty*. Briefly, hot applications or alternate hot and cold applications, relief from eyestrain, and general hygiene are necessary.

Eyelid
Diseases

(Eyelid
Diseases),
Sty

Cyst (Chalazion) of the eyelid is a chronic inflammatory enlargement and obstruction of a duct of one of the Meibomian glands of the lid, accompanied by involvement of surrounding tissues. These cysts sometimes disappear spontaneously. The condition usually, however, requires the simple operation of opening, perhaps excision, of the cyst.

Inverted Lashes (Trichiasis) cause mechanical irritation of the eyeball by rubbing against the surface of the cornea, which thus may be injured. There are pain, dread of light, lacrymation (watering of the eyes), and possibly eventual corneal ulceration. The treatment is purely surgical.

Ectropion and Entropion are an eversion and an inversion, respectively, of the margin of the lid. Entropion produces symptoms similar to those of inverted lashes. Ectropion produces reddening of the conjunctiva from constant exposure and excoriation and eczema of the lower lid. The treatment of either of these is surgical.

Ptosis is a dropping of the upper lid due to paralysis or to deficient development of the muscles which raise the upper lid. Treatment must be constitutional.

Several varieties of *tumors* may affect the eyelids.

Eyelids, Trembling of.—This physical disturbance often is present in the case of young children afflicted with one of the forms of conjunctivitis. However, it is nervous in origin and more constitutional than local in character. This affliction frequently takes the nature of a mild spasmodic or twitching affection, and often is the result of eyestrain, loss of sleep, or devitalizing habits, including sexual excesses, as it appears in all ages.

Treatment. The symptoms associated with this disorder can be effectively eradicated only by constitutional upbuilding. They indicate simply a defective condition of the nervous system which can be influenced only through an improvement in the nerve tone and the quality and circulation of the blood. As children find it difficult to fast with any degree of comfort, it is better that they use Partial Fast No. 1 or Fruit Diet No. 3 for two or three days; Fruit Diet No. 5 for two days; after which Milk and Fruit Diet No. 1 may be used for one or two days, and following this No. 2 may be adopted.

The child should be encouraged to stay out of doors all the time, or as much as possible, and every measure that will add to the general vigor and vitality should be adopted. Special Manual Treatments 1 to 10 are especially recommended to add to these vitality-building processes. They should be given daily.

A daily dry friction bath followed by a cool or a cold bath should be used also. If the child plays much out of doors it will need no other exercise. If it does not have this advantage, then

(Eyelid
Diseases),
Inverted
Lashes

Eyelids,
Trembling of,
Treatment

some special exercises should be given for using all the muscles of the body at least daily. Remember, however, that active play is the child's natural exercise and should be indulged in freely. The coddling habit commonly practiced has a detrimental influence upon the vitality of children.

It is far better that a child acquire a few of the verbal vulgarisms and with them the vigor and vitality which should go with normal childhood than that he should be kept in the house with a view of avoiding such social influences, thus preventing development of health and strength.

When appearing in adults it always is of nervous origin so requires constitutional measures for building up the general health, and with it, naturally, the nervous system. Eyestrain should be avoided with this condition.

FACIAL PARALYSIS.—Facial paralysis is produced by injury to the nerve which controls the muscles of the cheeks, eyelids, lips and chin.

Facial
Paralysis

Symptoms. The symptoms of facial paralysis (called also Bell's paralysis) are a flattening out of the muscles on the affected side of the face, a sagging of the lower eyelid and of the mouth on the affected side, with loss of lip movement, and frequently an inability to articulate clearly. On requesting a patient to pucker up his lips as in whistling, or to smile, it will be found that the muscles of the mouth on the affected side cannot be moved. If the injury or disease is at the inner end near the beginning of the affected nerve it may affect also tongue motion, swallowing, and speech. On protruding the tongue it will be found to deviate toward the well side.

This form of paralysis often is an after-effect of an apoplectic stroke (see *Apoplexy*), though it is possible to appear, apparently, without any other exciting cause than exposure. If due to syphilis or disease of the middle ear, the primary disease must be given attention.

Though there may be local causes of more or less importance in producing this ailment, one may be absolutely certain that in the beginning depleted vitality is a large factor in its occurrence. The cause of this depletion may be any form of dissipation or excess. Not infrequently gluttony is a prominent cause, especially when animal food is used in large quantities and when alcoholic liquors are freely indulged in. In short, the exciting local cause is only incidental.

Treatment. As the cause of the disease is constitutional the treatment should have for its object the purification of the blood stream and the building up of general vitality. This should be begun with complete Fast No. 2, which should be continued for as

Facial
Paralysis,
Treatment

Facial
Paralysis,
Diet in

long a period as the patient can adhere to it comfortably. The fast may be broken in four or five days, or it may be continued fifteen or twenty days or, where the patient carries considerable surplus tissue, even thirty days.

In many instances of facial paralysis the signs of the disease will disappear during the fast, though naturally this cannot be promised in all cases. This usually may be hoped for if it is an acute attack; that is, if it has existed for only a short time. When it is chronic in nature and the symptoms are of long duration, then one can hardly expect to notice any marked change for the better during the fast. If while continuing the fast the acute symptoms disappear, naturally the fast can be broken at this time.

The fast should be broken in accordance with the fast-breaking routine adapted to the length of the fast. The milk diet is indicated in practically every instance and should be followed for a considerable period after the fast. If one is below normal in weight it should continue until the weight that was lost during the fast is regained; otherwise, until the strength has been recovered. If the assimilation is especially good and milk is inclined to increase the weight materially, then Fruit Diet No. 7 should be used for a few days, after which Salad Diet No. 6 may be used. In taking up and continuing a regular dietetic routine be careful to avoid too great a variety at any one meal; if satisfied with two or three articles of food, then do not use more. Observe the greatest care to masticate thoroughly.

Special Manual Treatments 11 to 16 would be especially valuable in this ailment. If possible it would be much better to have the treatment given by an assistant, as described; though if this cannot be done, then Self-Applied Exercise Treatments 1 to 6 may be substituted. The hot spinal pack given with these treatments is especially valuable.

Select a vitality-building routine adapted to the patient's particular strength and follow the instructions found therein day after day, carefully and persistently. This is especially important. In fact, long walks would assist materially in adding to one's vitality and general vigor, and in remedying difficulties of this kind. If the bowels are not active, cool enemas should be used daily until the bowels move normally. Fresh air is highly important.

Additional aids are the hot foot-bath and the cool enema, the hot spinal pack and hot drinks. Though the constitutional treatment is the essential and most important factor, in some cases local treatment such as hot wet cloths or alternate hot and cold wet applications sometimes will be of advantage.

Fainting
Fainting.—This is a more or less sudden loss of consciousness resulting from temporary reduction or failure of the heart-action,

which occasions lack of sufficient blood in the brain. It is not a disease, but is or may be a symptom of disease. It is caused most frequently by fright or injury, but it may also occur during acute attacks of great pain or extreme nausea, or it may be due to heart disease, anemia, etc. A healthy person may faint if there is sufficient shock or loss of blood from injury; but those who are vital and vigorous are less inclined toward fainting than are weaker persons.

The *symptoms* of this condition are sudden loss of consciousness, pallor, coldness of the body and sometimes a cold perspiration. It usually begins with a dizziness or vertigo and a ringing in the ears, the loss of consciousness quickly following.

Treatment. Fainting itself requires the same treatment regardless of cause. The patient must be placed in a comfortable position with the head lower than the rest of the body. A plentiful supply of fresh air should be provided. The clothing should be loosened, not only about the neck, but about the chest and the waist, even the shoes and garters if necessary. The patient usually will regain consciousness in a short time. If these measures are not sufficient, cold water should be applied to or dashed on the face. Vibration or percussion then may be applied to the seventh cervical vertebra.

Fainting,
Treatment

In an occasional case heat over the heart may be advisable; rubbing the extremities may be of considerable value also. Cold water to drink, general warmth, rest, quiet and fresh air are then indicated until the patient fully recovers. If the fainting is due to injury apply any treatment necessary. (See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.) Never set a fainting patient upright.

FALLEN ARCHES.—See *Flatfoot*.

FALLOPIAN TUBES, INFLAMMATION OF (*Salpingitis*).—Inflammation of the Fallopian tubes (the tubes running from the uterus to the ovaries) is a fairly common condition. It may be either acute or chronic. As the mucous membrane lining the uterus is continuous with that of the vagina at one extremity of the uterus and with that of the Fallopian tubes at the other, it is an easy matter for any inflammatory process starting in the vagina or the uterus to extend into the tubes and through them to the ovaries and even to the peritoneum, in the latter case causing peritonitis.

Fallopian
Tubes, In-
flammation
of (*Salpingi-
tis*)

The more severe forms of salpingitis frequently are the result of gonorrheal infection through the vagina and the uterus, or of blood-poisoning following childbirth. It also may be due to an extension of inflammation of the uterus following an abortion or a miscarriage, in which infection has taken place. Constant irritation and congestion caused by sexual excesses may lead to this disorder, as well as may displacements of the uterus, lacerations, fibroid

is performed it does not obviate the necessity of following out the constitutional treatment. The blood must be purified so vitality and resistance may increase if recovery is to be complete and further trouble avoided.

Fallopian
Tubes,
Chronic In-
flammation
of, Treat-
ment

In the *chronic* form the routine outlined should be followed, except that bed rest is less imperative and that the alternate hot and cold local compresses or some other alternate hot and cold applications should be used regularly each day for a long time. Hot rectal irrigations will have the combined effect of clearing the bowels of waste and of favorably influencing the salpingitis. Each hot irrigation should be followed by a small cold irrigation or enema. Three times a week usually will be frequent enough for this treatment.

On alternate days hot and cold sitz-baths may be taken, the hot for six or eight minutes, the cold for a minute or so, both repeated if convenient. Heat locally applied by any convenient method is beneficial, but always should be followed by a brief cold application. Though the condition is chronic, there are likely to be acute attacks at any time from slight provocation. Hence sexual continence is highly important, as incontinence is one of the most frequent of provocative influences. Continued attention to bowel activity is also important.

Fatty
Degenera-
tion

FATTY DEGENERATION.—A deterioration of the cellular or molecular structure of a tissue or an organ, in which the protein material is converted into fat, with the result that the organs or cells concerned can no longer perform their functions. It may affect any part, tissue, or organ of the body. It is the result of defective nutrition, poor circulation, impure blood and lowered vitality. The degeneration of the cells or fibers can be arrested only by such constitutional treatment as will restore tone and vigor to all parts of the body. The general treatment given elsewhere for Vital Depletion (which see) is suggested. Atrophy is another form of degeneration.

Favus

FAVUS (*Tinea favosa*).—A disease of the skin produced by a vegetable parasite or fungus. It is a chronic disease which generally appears early in life and is likely to persist for a long time. It usually occurs on the scalp, though it may appear on other parts of the body. It is characterized by the presence of disc-like yellowish crusts which are dented or depressed at their centers. The hair follicles become affected and the hair falls out. After the crusts drop off a smooth hairless spot is left. There is a peculiar urinous or mousey odor to the crusts.

Treatment. By thoroughly cleansing the affected part with soap and water once daily this disease often can be remedied, especially if general constitutional methods are adopted with a view



PLATE 101. Favus is shown in upper figure. Ringworm, or tinea circinata, is shown in the lower figure.

of purifying the blood-stream. If this does not bring decided improvement after a trial of a few days, then it would be a good plan to apply sulphur moistened with olive oil, or carbolated vaseline once a day immediately after having washed the affected part with hot water and soap. Sulphur usually will kill the parasite of this disease, so recovery thereafter should be rapid. In stubborn cases, the hair at the seat of the disease should be extracted, and the above treatment continued.

Favus,
Treatment

Fruit Diet No. 6 will be a satisfactory dietetic routine to follow in connection with the treatment of this ailment, though if the body is under normal weight, indicating a lack of assimilative power, Milk Diet No. 1 would be still better. Any measures such as are indicated in the vitality-building routine adapted to the strength of the patient, and which would add to the general vitality, would be of considerable help.

FECAL VOMITING.—This alarming symptom is likely to occur as a late manifestation when the intestinal tract is wholly occluded. It may appear in obstructed colon, strangulated hernia, severe peritonitis, volvulus or kink and intussusception or telescoping of the colon; or it may happen directly when a fistula exists between the stomach and the colon. The repeated contractions of the gastric muscles in ordinary vomiting aspirate the intestinal fecal matter into the stomach, from which it is ejected. Therefore, this condition does not develop at once in cases of blocking of the intestines, but only after the substances of the upper digestive canal have been vomited.

Fecal
Vomiting

This is a symptom of grave moment, in some cases necessitating surgical interference. If there apparently is a blocking of the intestines it is possible that proper physiotherapy will correct it and prevent the vomiting from reaching the fecal stage; but after this stage is reached the condition has become one for the experienced physician or surgeon, as a slight mistake might easily end in death.

Treatment. As fecal vomiting is only a symptom, the treatment should be directed toward the cause of the condition. An operation will be required in some cases. As obstruction of the bowels often is mechanical in nature, it cannot always in itself be called a disease, so mechanical treatment (surgery, in this instance) is likely to be required. In some cases it may be possible to remove the obstruction before the vomitus becomes fecal in character. But after fecal vomiting has developed nothing except correction of the obstruction will check it until the intestinal contents have been emptied. Twisting the body in various positions, raising the body to reverse the position of the organs, hip up, shoulders down, is worth trying.

Fecal
Vomiting,
Treatment

If the trouble is due to intussusception or twists or kinks in the

bowels the treatment advised under the heading *Intussusception* should be tried before an operation. Treatment for the other abnormalities mentioned as causes also will be found under their respective headings. (See *Strangulated Hernia*, under *Rupture*.)

Fecal
Vomiting,
Operation
for

If an operation be performed, fasting is to be observed until healing has progressed definitely and satisfactorily, after which a diet of fresh fruit may be adopted for a day or two. Then a diet of light laxative foods, such as fruits and vegetables with small amounts of buttermilk and whole-grain products, may be adopted. Enemas may have to be employed until normal movements are obtained, unless the operation wound is in such a position as to make them inadvisable, in which case mineral oil or similar intestinal lubricants may be employed for a time.

FEET, ACHING.—See *Corns* and *Bunions*, also *Flatfoot*.

Felon

FELON (*Panaris*, *Paronychia* or *Whitlow*).—Suppuration and abscess at the end of a finger or a thumb, while apparently local in character, never occurs unless there is a general toxemia. Infection through a scratch or an abrasion of the skin or, as is usual, as a result of a severe bruise may be the exciting cause; but if the bloodstream were pure the felon would not develop. The real cause, therefore, is an accumulation of toxins in the body resulting from wrong habits of living.

Symptoms. There is swelling of the affected part, which becomes red and shiny at first, later on becoming purplish or greenish. There is an intense throbbing pain in the part, also some general fever, chilliness and malaise. In a few days pus forms and if not evacuated by an incision it bursts through the tissues and discharges spontaneously. The inflammation usually is beneath the periosteum of the bone, which structure softens and breaks down as the pus works toward the surface. If this condition is not carefully treated a complicating gangrene and sloughing of the parts may set in, followed by blood-poisoning, which may cause serious results to the hand, the upper extremity or the entire body.

Felon,
Treatment

Treatment. Since general toxemia is the cause of the felon, treatment must be constitutional as well as local. If this is neglected the bone may become affected and gangrene may develop.

At the first sign of trouble Complete Fast No. 3 should be immediately adopted, daily small cool enemas taken until the bowels are thoroughly cleansed and water drunk freely during the day. A local cold pack should be applied twice a day and kept on for hours at a time and also at night before retiring, when it is allowed to remain until morning or until dry. After a few days, if the felon continues to develop in spite of the continued fasting, water drinking and enema, the fast may be broken by taking oranges for a day or two, and then Milk Diet No. 1 may be adhered

to. This will assist in bringing the abscess to the point of discharge and will favor healing thereafter.

While on the milk diet enemas are to be continued if necessary. The local cold packs may be continued at night, but during the day should be changed to hot Epsom salts compresses, for thirty minutes several times a day. If these hot compresses do not cause the abscess to discharge, it may be necessary to have it lanced, though this is rarely required if a liberal quantity of milk is taken.

The affected part should be exposed to the sunlight as much as possible both before and after drainage has been established. If possible to take, general sun-baths will be more effective than local exposures. However, if there is fever the general sun-baths should not be used. Instead, a general cold wet-sheet pack, a hot blanket pack or a hot tub bath may be given daily for two or three days, and local exposure to sunlight may be used. After being on the milk diet for several days an appropriate vitality-building routine should be adopted, No. 2 probably being applicable to most cases, and later No. 1. It is important that the vitality and resistance be increased, not only to favor healing but to prevent further trouble.

Felon, Sun-
light for

If fasting and cold packs prevent the development of the felon and the inflammation subsides, it will not be so necessary to follow the fast and the milk diet, though it would still be advantageous to do so. If this is not used, the milk and fruit diet may be followed for a few days. Then a solid food diet of strictly natural foods, (preferably Salad Diet No. 6), drinking plenty of water between meals, may be adhered to.

FEMALE WEAKNESS.—This, a general term, is applied to the various disorders of the female reproductive organs. It is applied most frequently, however, to *Leucorrhea* and to *Displacements of the Uterus*. (See *Leucorrhea* and *Uterus, Displacements of*.)

Female
Weakness

FEVER.—When the body temperature is above the normal of 98.6 degrees, the person is said to have a fever. Fevers may range up to 106 or 107 and are generally considered in the dangerous stage in adults if they pass 103 or 104, though in the case of children as much as 105 may be experienced without any great danger.

Fever

High fever seldom if ever occurs if proper treatment is instituted at the start of any illness. All fevers indicate the need for extra elimination. A rise of temperature above the normal is definite proof that a general toxemia is present, except possibly in some cases of sunstroke. It will be found, however, that sunstroke is more likely to be suffered by those who are toxemic than by those who are not. A fever occurs only when it is necessary to assist the body in destroying the poisons within it, so it should not be suppressed by drugs nor by any other treatment.

It may be satisfactorily controlled by hydiatric measures if necessary, but it should never be kept down too much. One of the chief causes of high fever is suppression of low fever, which also lengthens the duration of the high temperature. High fever may be accompanied by delirium. (See *Delirium*.)

Fever,
Treatment

Treatment. Fever is a symptom. But since this always indicates a general toxemia the same treatment applies regardless of the particular disease with which it is associated and whether or not delirium exists.

The first thing required is rest if it adds to bodily comfort. The body is exerting all its energy to bring about extra elimination, so none of the vital power should be wasted in enforced muscular activity. The next requirement is plenty of fresh air. The lungs are very active eliminative organs, so the more fresh air they get the better they will do their work. Besides, during fever oxygen is required in considerable amounts to assist in the process of combustion of systemic toxins and cell wastes.

Since the digestive juices flow very little if at all during a fever, a fast is positively indicated. Complete Fast No. 3 generally is preferable, as the free drinking of water facilitates elimination through the kidneys and the skin. The water may be taken hot when the fever is just beginning or as long as it is low, but should be changed to cold if the fever continues and becomes higher. Of course, ice-water should never be used.

A full warm enema should be given on the first day to cleanse the bowels thoroughly, and should be repeated daily during the fast, though the temperature may be lowered to cool if the fever becomes high. This combination of fasting, water drinking, enemas, rest and fresh air will insure removal of the causes of the fever and in most cases will be all the treatment necessary.

Fever,
Hydro-
therapy in

When a fever is first beginning, a sweat bath of some kind may be of much assistance. Through greatly increasing the skin activity, this may remove enough of the toxins in the body to render the fever unnecessary, hence it will immediately subside. A steam, hot-air or electric-light cabinet bath, a hot foot-bath, or hot immersion bath, or a hot-blanket or an electric blanket pack may be employed if necessary, depending upon which is the most convenient or the most effective in the particular case. After free perspiration has been established the body should be sponged off with warm water, then with cool water, and the patient should retire to bed for a long rest if bodily comfort demands it. If this does not prevent the development of the fever, a cold wet-sheet pack should be given on the following day, continuing it for about two hours. Thereafter, a daily cold abdominal pack may be applied until the fever breaks.

If the fever continues high, however, the full cold wet-sheet pack may be used every other day, and the abdominal packs on the alternate day. In some cases where there is great need for immediate results, the general cold pack may be repeated for several days if the patient's strength permits. The so called Brand bath is used in typhoid fever. Air-baths and cool sponge baths, the wet-sheet rub, the dripping sheet, or the evaporating sheet may also be employed when the temperature runs high.

The excellent air-bath is given by simply removing all bed and body clothing from the patient in a room with a free circulation of air. It may be continued as long as there is no sensation of chilliness. In very cold weather it will necessarily be brief, but in warm weather it may be continued almost all day long. Often the air-bath will take the place of cold packs, in which case it is to be preferred because it requires less expenditure of energy by the patient.

In mild fevers about the only bath required will be a daily tepid sponge bath. If fever alternates with chills, apply heat in the form of a hot-blanket pack during the chilly stage and nothing during the alternate stage unless the fever becomes quite high.

The fast should not be broken until twenty-four hours after all fever has gone. The fast-breaking routine to be employed will depend not only upon the length of the fast but upon the severity and the height of the fever. A high fever may be comparatively short in duration, but it indicates that eating should be resumed more gradually than would ordinarily be necessary. In practically all cases where the fever is not broken right at the start it is well to limit the diet to fresh fruits for several days, using only the juices on the first day. Usually the diet to employ is one that will be of special value in the particular disease present, but the milk diet perhaps is of greatest service in most cases. Enemas are to be continued if necessary, but the other hydriatric treatment may be discontinued. Physical activity must be resumed gradually to allow plenty of time for recuperation.

In the case of children it is permissible more quickly to break the fast or partial fast, so the milk diet is almost always best in these cases. With these two exceptions, treatment of fever in children should be practically the same as given above for adults.

The fever accompanying tuberculosis requires special treatment. (See *Tuberculosis*.)

FEVER BLISTER (*Cold Sore; Herpes febrilis; Herpes simplex*).—This skin eruption consists of a group of small vesicles which usually appear upon the lips (*Herpes labialis*) or the nostrils. Often it is associated with a cold (hence the term cold sore), or an attack of indigestion, or any disease where there is fever. Especially is it produced by those conditions in which there is a lowered alkalinity

Fever
Blister

of the blood or an increased acidity of the gastric secretions. It is merely a form of extra elimination. Improper diet is the chief cause, the main foods producing the eruption being sugars and starches, especially the combinations of sugar and starch, sugar and acid, acid and starch, and starch and condiments. The eruption starts with a tingling itch in a localized area. Soon a redness appears, then minute water blisters, singly or in a group. Pus development usually takes place in the contents of the blebs. After the eruption and discomfort disappear a redness remains for a few days, then gradually fades.

Fever
Blister,
Treatment

Treatment. If the fever blisters occur without other special symptoms they can be eliminated within a few days, if a mild attack, by adding a liberal quantity of acid fruit to the diet; or if severe in nature by adopting a diet of nothing but oranges and water—from six to twelve oranges and from three to four quarts of water daily. Proportionately smaller quantities of each should be used for children. This diet quickly alkalizes the blood, thereby removing the cause of the fever blister. In any case sugars should be avoided, preferably starches also.

Enemas should be employed daily while on this diet if needed. Long walks, deep breathing of fresh air and sun-baths also are helpful, though not infrequently sunburn causes these blisters through the general fever which results. Eating must be resumed gradually, employing natural foods and giving special attention to raw food, but using care to avoid overeating. If convenient it would be well to adopt Milk Diet No. 3 for about a week. This continues the alkalization process. A recurrence of a fever blister can then be prevented by general right habits of living.

No attempt should be made to suppress the skin eruption by the use of powerful antiseptics. Boric acid water may be used for cleanliness and to relieve itching. No local treatment will have an appreciable effect of value.

If the fever blister occurs in conjunction with some other disease, treatment for this will take care of it.

FILARIASIS.—See *Elephantiasis*.

Fish-Skin
Disease

FISH-SKIN DISEASE (*Ichthyosis*).—An excessive dryness of the skin is the chief characteristic of this disease, fissures appearing upon the upper layer. The surface of the cuticle becomes green, glistening and shiny and commences to fall off in small round scales. The natural fat of the skin is entirely absent and thus the skin becomes rough and lusterless. Though the disease is extremely repellent, there is no danger attached to it and it is fairly amenable to proper treatment. However, some degree of abnormal skin hardness and dryness always will remain in case of genuine ichthyosis. In those conditions of excessive skin dryness and roughness

the outlook for recovery of normal or comparatively normal skin is good. True ichthyosis usually first shows itself during the first and second years of life.

Treatment. Although local applications may be of value in moistening and softening the skin, adding to the comfort of the patient, the general treatment of this complaint must be largely constitutional. Perhaps the most satisfactory local applications that can be used as a means of moistening the skin are olive oil, cocoanut oil or lanolin, which should be applied in most cases.

The blood-purifying process may begin with complete Fast No. 2 and be continued as long as the vitality and the strength of the patient will allow. In fact, if this fast is adhered to until inflammation associated with the disease has entirely disappeared it will be distinctly to the advantage of the patient. In some instances, however, this disappearance may take from fifteen to thirty days, so it is not positively necessary to continue the fast for this length of time. If children are being treated this fast cannot be used. It will be far better to use a fruit juice diet for one to three or four days, repeating every two or three months.

The diet recommended to follow the fast has a remarkably purifying influence upon the blood. In many instances the real benefit of the fasting routine is not definitely noticed until after one has continued this diet for several days. The fast-breaking routine adapted to the length of the fast should be selected, though the exclusive milk diet is absolutely insisted upon in this disease.

If the occupation is of such character that this diet cannot be adhered to in half-hour meals, as recommended in Milk Diet No. 2, then Milk Diet No. 11 may be followed, increasing the quantities suggested in this diet as much as possible, with a view of flushing the body thoroughly with this wholesome and vitality-building nourishment, a process especially essential in this difficulty, if one is desirous of securing quick results. In the case of a child, the quantity of milk depends upon the age and general condition.

A daily, warm wet-sheet pack is recommended as a means of improving skin circulation. It may be taken every day during the fast provided it is not too weakening in its influence, otherwise every other day, with each succeeding bath of shorter duration. When the fast is broken the packs should be replaced by a neutral bath (98 degrees F.), described in Volume VI. This should be taken in connection with the milk diet. The oil or lanolin noted above should be applied immediately after this neutral or warm bath while on the milk diet, and immediately following the wet-sheet pack when fasting. Bran baths are of benefit in softening the skin, as also are electric-light baths, hot-air baths, steam baths and warm water baths.

Fish-Skin
Disease,
Treatment

Fish-Skin
Disease,
Diet in

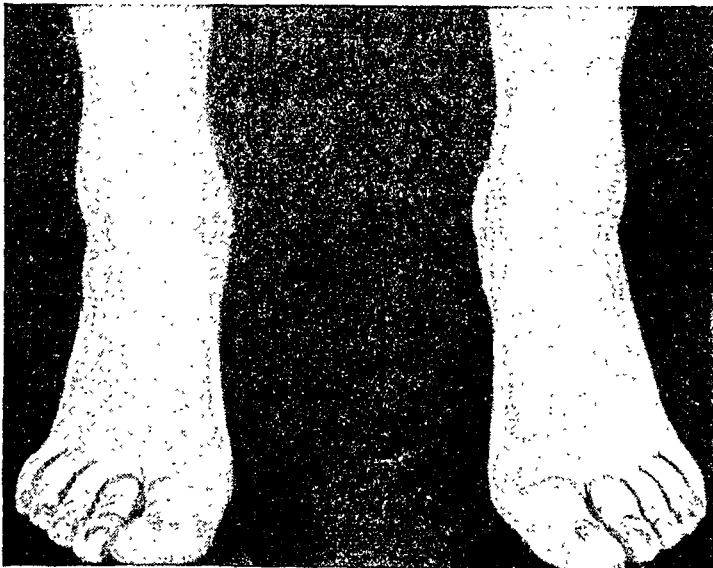
General body manipulation, such as described under the head of Special Exercise Treatments in Volume VI, would be of special value, though as strength is gained considerable vigorous exercise may be added. These exercises, however, while on the milk diet, should be taken in the morning before beginning the consumption of milk, though after discontinuing this diet they may be taken at any time during day or evening. After discontinuing the milk diet Special Manual Treatments 11 to 16 may be used with advantage as a means of adding to the general vigor. Long walks and every other means that may be of value in adding to the strength of the body should be taken advantage of regularly when the patient resumes his ordinary habits of life.

One should realize that this disease is aggravated by dietetic and other errors, so such mistakes must be avoided. Regular exercise and various other measures for enhancing the vitality would naturally aid in preventing future attacks. Air-baths and sun-baths are of especial value in this disease since they make for the better health of the skin itself and of the body as a whole. Artificial sun-baths should be secured when natural sun-baths are not available. A *super-fatted* soap (See *Water and Health*, Vol. VI, Sec. 2) should be used when soap is required and only the soap should be rinsed off, the fat being allowed to remain.

FISSURE OF ANUS.—See *Anus, Fissure of*.

FISTULA.—See *Rectum, Diseases of*.

FLATFOOT.—A broken-down condition of the arch of bones of the foot, in which the entire sole of the foot or a good part of it rests flat upon



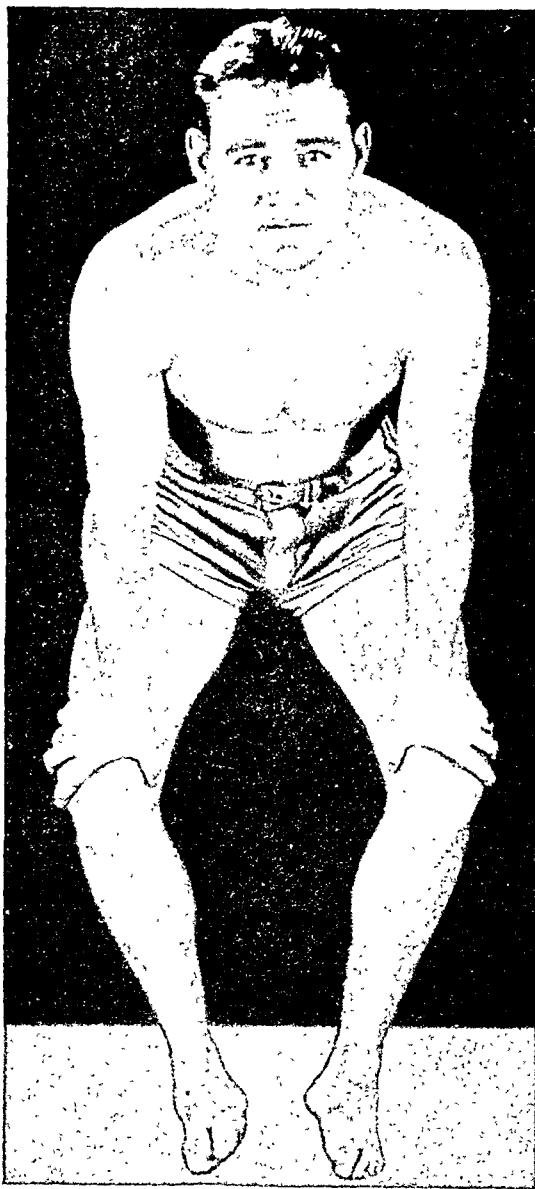
The arch across the front of the foot, as well as the arch under the instep, is strengthened by walking about on the toes with heel elevated from the floor, as here shown.

the ground, whereas in the normal foot little more than the heel, the ball of the foot and the toes touch the ground. The deformity usually is very painful when present in a marked degree, though in the colored race there often is little or no pain or other discomfort. Flatfoot is

spoken of as existing in the first, second or third degree, according to the amount of flattening. In marked cases the entire sole is in contact with the ground, the instep or arch of the foot is absent and the ankle bulges over to the inner side. Fallen arch is a popular name for this trouble.

Treatment. The usual treatment of supplying shoes with an artificial arch to support the foot perpetuates the weakened condition of the ligaments and muscles which is the cause of the affection. It is true that one afflicted with an extreme case of flatfoot will do well to avoid too much standing upon his feet; but if he is able to walk at all and able to raise his body upon the toes even to a slight degree, daily walks will be beneficial. Walking will strengthen and invigorate but standing still will only strain the parts. If there is much strain and pain one should do little walking, and certainly should not stand still much.

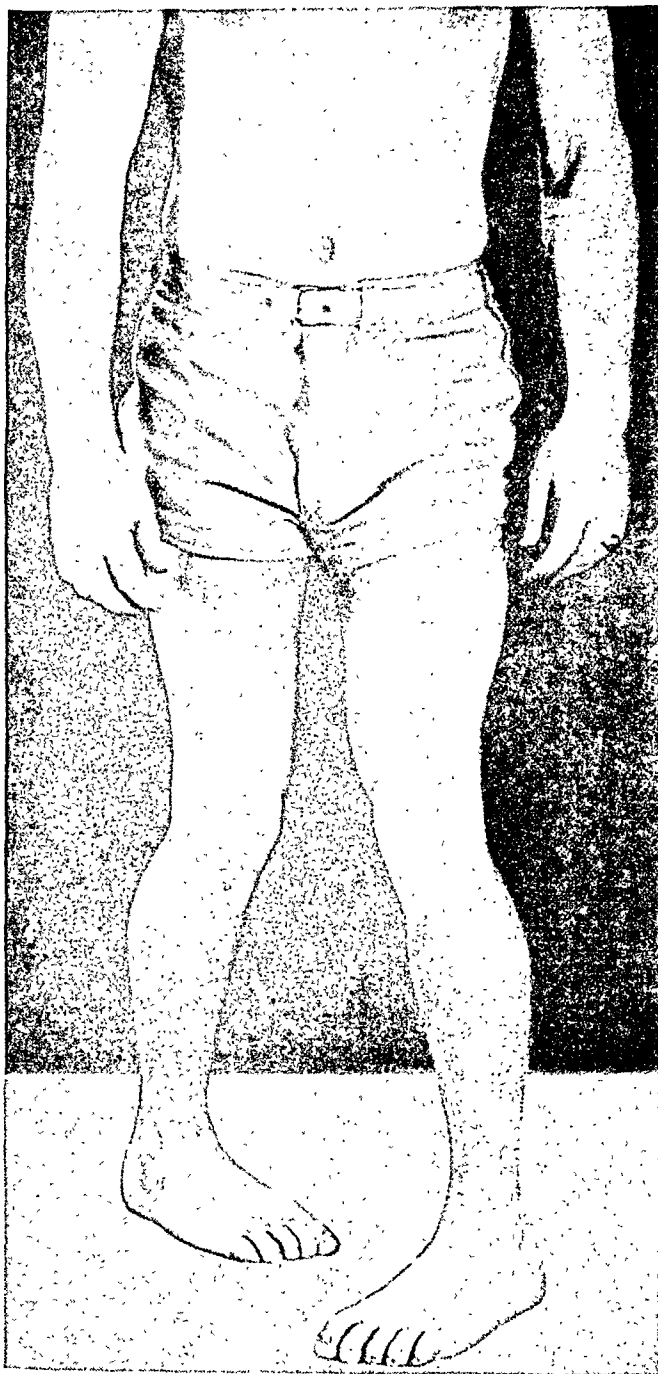
However, the real remedy in a case of this kind must consist in strengthening and hardening the ligaments and muscles of the feet. For this purpose nothing is so effective as special exercises which tend to draw the bones of the arch into normal position while improving the condition of the supporting structures. Among such exercises are those in Vol. III; also walking pigeon-toed (with heels low and on the toes), walking bare-



Flatfoot,
General
Treatment

This exercise for flatfoot is performed by turning the feet so as to support the weight of the body on the outer side of feet. Exercise may be repeated as many times as endurance permits. The position illustrated may be held for the purpose of stretching the ligaments.

Flatfoot,
Manipulative
Treatment



For flatfoot, walking with the toes turned in, as illustrated, is an excellent exercise. As many steps forward should be taken as endurance permits. It is helpful also to walk backward with the feet in the same position. As each step is taken it is advisable to turn the toes inward as much as possible and to be deliberate with each movement so as to exercise and strengthen the muscles and ligaments particularly on the under side of the foot. To raise the body occasionally on the toes with the feet in this position is also useful.

foot, and attempting to grasp the floor with the toes, and picking up marbles with the bare toes. Massage of the muscles of the lower legs and the feet also will be of much benefit; also Self-Applied Foot and Ankle Manipulations Nos. 21, 22, 25 and 26, described in Vol. VI.

Another valuable form of treatment in connection with this complaint is the cold salt-water foot-bath, which tends to invigorate and harden all of the tissues concerned. This may follow hot soaking or hot-air baking and the heat and cold may alternate two or three times. In short, the feet should be strengthened in every possible way.

This special weakness which has been brought about in the structure of the foot usually is associated with more or less weakness of the entire body, defective circulation and an impoverished or unsatisfactory condition of the blood. In most cases, there-

fore, it will be necessary, in addition to the special treatment suggested above, to adopt some general vitality-building routine suited to the strength of the individual. This would help to overcome the tendency toward varicose veins which are fairly common upon the legs and the feet of those who suffer from this affection.

With a better circulation, improved nutrition and a general increase in strength, the simple exercises and special treatments suggested will accomplish wonders in practically every case. A sponge-rubber arch support will be of great assistance in many cases, being preferable to the usual unyielding supports. Raising the inside margin of the shoe sole and heel with a wedge of leather is of value for many cases also.

FLATULENCE.—A person is said to have gas when so much is present in the stomach or intestines as to produce pain and discomfort. The technical term is flatulence, this being defined as undue production of gases in the alimentary tract. The gas is produced most often by fermentation, this in turn being due to overeating, eating too fast, imperfect mastication, improper combinations of foods, or some defect in the digestive organs or of the digestive functions. The last may be produced by other wrong habits of living beside dietetic errors. Flatulence

Prolapsus of the stomach or the intestines resulting largely from lack of exercise is especially known to produce gas. Constipation is prone to produce this symptom, which is also associated with diarrhea. The sudden adoption of an alkalinizing and eliminating diet of fruits and vegetables also may produce gas for a time, because the old material which has accumulated in the intestines is being loosened, stirred up and chemically altered on its way out. Some gas is natural, because the process of digestion is one of fermentation; but it should not be enough to be noticeable. An excessive amount may produce various surprising symptoms on account of nerve pressure.

Symptoms. The symptoms of this condition are gaseous distension of the abdomen, often with pressure symptoms, particularly palpitation of the heart due to reduction of the space required by the heart for action.

The gas may be expelled from the stomach through the mouth or from the intestines through the rectum. Either way it may be inoffensive, or it may be foul due to decomposition of the contents of the alimentary tract. There may be a feeling of distention amounting almost or even to pain. The pain may be steady or paroxysmal. Usually it is relieved by the expulsion of the gas.

Treatment. Overcoming the tendency to the undue production of gas is, of course, a matter of removing the causes. Immediate relief practically always follows drinking two or three glasses of

Flatulence,
Symptoms

Flatulence,
Treatment of

water or even a part of a glass of hot water, or by pressure applied vigorously with one or both hands at various parts of the abdomen, or by taking a fairly large and hot enema or colonic irrigation. But for permanent results the habits of living must be corrected. If plain hot water does not prove effective, the addition of a little salt or lemon juice often will be of further assistance.

If relief still is not obtained, hot compresses should be applied over the abdomen. In severe cases of gas in the stomach, it may be necessary to empty that organ by drinking several glasses of warm or hot water and then placing the finger in the throat to induce regurgitation. If the gas is in the intestines, a warm enema or series of small cool ones is advisable. Spinal manipulation also is of further assistance, using any of the back and shoulder movements or spondylotherapy, applying the concussion to the fifth dorsal vertebra for gas in the stomach and to the eleventh dorsal vertebra for gas in the intestines.

After an acute attack or if the condition is chronic, it is well to fast for a few days or to take a diet of nothing but vegetable broth for several days. Plenty of water should be drunk and an enema taken when necessary. Eating should be resumed gradually, employing Fast-Breaking Routine No. 1 and adhering to it strictly. If there is prolapsus of any abdominal organ, special exercises will be required, chiefly gravity exercises. The cause of this condition should always receive the most attention. (See *Constipation, Diarrhea, Dyspepsia, Gastritis*, etc.)

FLOODING (*Menorrhagia*).—See *Menstruation, Profuse*.

FLOWING BETWEEN PERIODS.—See *Metrorrhagia*, under *Menstruation, Profuse*.

FRACTURES.—See *First Aid in Accidents and Disease*, Vol. VII.

FRECKLES.—See *Skin, Care of*, under *Beauty and Personality*, Vol. V, Sec. 9.

FREEZING.—See *Chilblains*, also *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

FROG-TONGUE (*Ranula*).—A benign tumor which appears underneath the tongue on either side, usually produced by the retention of saliva in one of the salivary glands. Though its size may cause annoyance, little or no danger seems to be attached to it.

Treatment. If the symptoms are recognized when in its incipient stage a fast of two to seven days will tend to cause the fluid therein to be re-absorbed. If the disease has progressed too far, however, it will be necessary to find an outlet for it. The use of the knife for furnishing this outlet is not always advisable, though there are some instances where the walls are very hard and an incision is essential.

Frog-Tongue

A two-day fast followed by liberal but proper feeding in nearly

all cases will hurry the tumor toward a definite cure. Milk Diet No. 2 will follow such a fast very satisfactorily.

FROST-BITE.—See *Chilblains*.

FURUNCLES.—See *Boils*.

GALLSTONES (*Cholelithiasis*).—Concretions which form in the gall-bladder and the bile-ducts; in the former in over 50 per cent. of all cases. They vary in size from a pin-head to a small egg. Gallstones

Since 75 per cent. of cases of gallstones occur in women, especially about the age of forty, this predisposition has been attributed to the wearing of corsets! Gallstones appear most often among persons of sedentary habits and in those who have lax abdominal walls. Acid-producing diet and wrong food combinations, particularly of starches, overload the liver, change the quality of the bile and cause gallstones. Constipation may be a predisposing factor.

Symptoms. One may be quite unconscious of their formation and presence until Nature makes an effort to expel them. Then an attack of what is known as *gallstone colic* ensues and, during the passage of the stone, a burning, excruciating pain is felt in the "pit of the stomach" and to the right of that point.

If the stone which passes is of any appreciable size the victim breaks into a profuse perspiration and writhes in agony as the pain becomes unbearable. Loss of consciousness may follow. The attack lasts from two to four hours or more and then generally subsides. Gallstone colic occurs suddenly, often without any warning, very frequently at night, subsiding gradually but leaving a dull ache and great prostration.

When the stones are small it is possible to pass a considerable number with little or no suffering. The passage of many small stones usually is indicative of the possibility of more serious trouble in the future. Aside from attacks of gallstone colic, persons suffering from gallstones are likely to be troubled with discomfort in the region of the stomach, the presence of gas the expulsion of which gives relief to this discomfort, attacks of dyspepsia, and often pain in the back or in the right shoulder.

Treatment. In many instances, a helpful treatment in the complaint is the use of large quantities of olive oil before retiring—from one-fourth to one-half a pint, or from half a tumbler to a tumblerful. If a little lemon juice is taken thereafter much of the unpleasantness of this remedy will be avoided.

If this treatment does not bring results, the necessity for a fast is clearly indicated. As a rule it is advisable to continue the fast until the stone or stones have passed through the gall-duct into the duodenum. This in some instances requires a continuation of this fast for five to thirty days. Abdominal massage is helpful.

The free drinking of water always is advisable in a difficulty of

Gallstones,
Treatment

this kind. In most cases it would be advisable to adopt the milk diet following the fast, if this routine is adopted, breaking the fast in accordance with the fast-breaking routine adapted to its length. A solid-food diet containing large amounts of green salads, cooked green vegetables, juicy fruits and sour milk will be best to follow the milk diet or in case the milk diet cannot be used.

Fomentations over the liver region will be of some benefit by increasing the local circulation and relaxing the tissues. Alternate hot and cold applications often prove more beneficial than either heat or cold alone. Full hot enemas also will be useful in the same way, and especially in connection with fasting. One enema each day should be given. In some cases enemas of olive oil may benefit more than plain water enemas.

Gallstone
Colic

Gallstone Colic. (Acute pain due to the passage of a gallstone through the gall-duct.)—Considered as a disease, gallstone is a chronic condition. The attacks of pain are paroxysmal and acute. Gallstones produce few symptoms until the body attempts to eliminate them by passing them through the gall-duct into the intestines. Some stones are so large that they cannot pass through the duct. The greatest pain is produced by the stones small enough to enter the duct but so large they pass through with great difficulty.

Treatment. It is difficult to afford complete and immediate relief from pain in a case of gallstone colic, because until the stone has passed into the intestines the cause of the pain will remain. The pain, of course, can be deadened by the use of drugs; but this sometimes is very inadvisable because all such pain-killing drugs are depressants and slow up the passage of the stone. Complete relief will be afforded in most cases by the internal and external application of heat. However, in case heat does not afford some relief a pain-deadening drug may do less harm than the shock to the nerves occasioned by the pain.

Gallstone
Colic,
Treatment

First of all the patient should drink freely of hot water. The first glass should contain a small teaspoonful of salt. Thereafter the water may be flavored with lemon juice. As much as a glass every hour may be taken. After the patient has taken about a quart of water, a full hot enema should be given. Then a hot abdominal pack may be applied, maintaining heat by a hot-water bottle. The pack may remain on as long as necessary to give relief.

Some patients find it helpful to drink from four to six ounces or even eight ounces of olive oil. A full dose (glass) of citrate of magnesia an hour after the oil is sometimes advised. Gentle massage about the liver, gall-bladder and intestines also may be used, as the pressure upon and shifting of the abdominal contents helps to push the stone through the gall-duct.

No food is to be taken until a day after the acute pains subside. If a longer fast has not already been taken for the condition of gallstones, this would be a good time to start. If one is to avoid future attacks of gallstone colic, it will be necessary to remove the causes of the formation of the stones. If only a short fast is taken for an acute attack, eating must be resumed gradually. It would be well to take nothing but about six glasses of buttermilk the first day, and for a week or more to adhere to a raw food diet largely composed of fruits, vegetables and some form of sour milk.

Gallstone
Colic, Diet in

One should remember, however, that when he has relieved an acute attack of colic he has not by any means lessened the subsequent inclination toward the formation of these stones in the gall-bladder and that after having secured relief from one attack he should then begin to follow a general health-building routine which will tend to prevent repetitions of attacks of this nature. He should select a vitality-building routine adapted to his individual strength and follow it carefully day by day. He then can depend upon avoiding future attacks of this very painful and in some cases serious disease.

Diet is very important in preventing future attacks. It should be rich in fruits and green vegetables, relatively poor in fats and should have enough indigestible bulk to maintain free bowel activity. Always considerable water should be drunk. Various exercises for strengthening the spine and stimulating the activity of the nerve centers are advised for this purpose: Self-Applied Exercise Movements 7 to 15 are valuable; stronger patients may add Self-Applied Exercise Movements 1 to 6. In addition, all abdominal and waist muscles should be exercised regularly, and of course for a long time.

GANGRENE (*Mortification*).—The tissues of the body become gangrenous when the blood supply is interrupted and morbid processes follow, ending in local death and decomposition of the affected tissue. Gangrene may be recognized by the black color of the part affected, and by the wrinkling of the skin. It may result from severe inflammation, the obstruction of certain blood-vessels, as a complication of diabetes and during certain nervous disorders of the circulatory system. It may appear in one of two forms—humid or *moist gangrene*, when the part affected becomes dropsical, emits a very foul odor, and the tissues slough away; or *dry gangrene*, when the dead tissues become dry and shrivelled. It usually appears first in the extremities.

Gangrene

Treatment. The appearance of gangrene in any part of the body indicates the death of this particular part. If the symptoms of this should continue for several hours it would be impossible to bring life again to the affected part. Therefore, any treatment

Gangrene,
Treatment

that may be necessary in this disease should be quickly adopted and actively continued. The use of local hot applications, preferably wet packs, is especially valuable. In some cases a hot application may be followed by a brief cold application, although where the vital powers are especially limited in strength cold must be used with the greatest care. L: 5k73, N 70-8 71459

Gangrene cannot be termed a disease in itself. It usually is associated with some other disease, so naturally it is foolish to attempt to treat one symptom of any complaint. The primary disease itself must be treated. Under such circumstances gangrene, which is simply one of its symptoms, will respond if very prompt measures are adopted.

Above all things the circulation must be accelerated. Therefore, one should realize that the acceleration of the vital and functional activities throughout the body is specially important in treating this condition. Hot packs to the spine and also abdominal packs are valuable for this purpose. Hot sitz-baths may be used sometimes to good advantage. Cases are on record in which the patient was so near to death that preparations were being made for the funeral but in which these measures (the hot spinal pack, hot abdominal pack and hot sitz-bath) were used with such marked results that the patient was almost snatched from the grave.

These particular measures seem to be of extraordinary value in arousing activity of the vital organs, so it is hardly necessary to mention the fact that life depends upon the functional processes which must be regularly and continuously performed by the various organs. When any one of the vital organs begins to lag in its duty the entire body soon feels the change and slowly but surely death begins to creep upon one. When one can adopt some means to arouse these organs to their duty, in many instances an almost immediate change may be noticed.

Elevation of the part and massage toward the heart from *above* the affected area will prove beneficial. Warmth of the part is essential. Often hot-air baths to the affected region are of value. The copious drinking of hot water and absolute fasting are essential in a critical condition of this kind.

Gangrene,
Hydro-
therapy in

Unless the bowels have been active, enemas will be of value; indeed, the hot full enema will be found stimulating as well as cleansing, also arousing activity of the kidneys. If one is too weak to fast for more than two or three days without too greatly reducing the vitality Milk Diet No. 2 should be adopted, thus increasing the blood supply and improving the circulation. Pure outdoor air or its equivalent is to be insisted upon. Beyond these suggestions, all treatment should be adapted to the primary disease, of which the gangrenous condition is the symptom and result.

GAS, ILLUMINATING.—See *Asphyxia* under *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

GAS, INTESTINAL.—See *Flatulence*.

GASTRITIS (*Gastric Fever*).—A stomach disease which may be either acute or chronic, characterized by an inflammatory condition of the mucous lining.

Gastritis

Acute gastritis is known also as acute dyspepsia or acute gastric catarrh. It may be due to dietetic errors or to the accidental or intentional taking of poisonous drugs. The former cause is by far the most frequent. Overeating, insufficient mastication, improper combinations of food and the use of foods which are difficult to digest or partly spoiled are the dietetic errors most likely to bring about an acute gastritis. Such an inflammation may arise also from the progress of some general acute fever disease if the patient takes food instead of fasting as he should. The excessive use of alcohol is another cause. The various causes may all be summed up as wrong habits of living, especially improper diet. This condition occurs at all ages.

The *symptoms* of acute gastritis may be mild or severe, according to the type of the disease. In the mild type there are abdominal discomfort, loss of appetite, coated tongue, nausea and vomiting. Relief of the discomfort usually is temporarily secured by vomiting. The temperature, as a rule, is slightly elevated, though often it is normal. Headache is a persistent symptom. This form of acute gastritis usually lasts but one or two days.

Gastritis,
Acute,
Symptoms

At the onset of the severe type there sometimes is a chill, which usually is sudden. There are fever, ranging from 102 to 103 degrees, coated tongue, heavy breath, bad taste in the mouth, thirst, loss of appetite, headache, some vertigo, acid eructations, heartburn, vomiting, tenderness over the stomach and distension of the organ with gas. Constipation is common, though in some cases there may be some diarrhea. These symptoms last but a few days, and recovery usually is complete. If proper care be exercised, when they first arise they usually disappear in a few days. Should they be unwisely treated, a condition of chronic gastritis may follow.

Chronic gastritis (*Gastric Catarrh* or *Catarrh of the Stomach*). *Symptoms*: Loss of appetite, pain after meals, eructations, constipation, sometimes diarrhea, much mental disturbance and emaciation are not uncommon symptoms of this complaint. There also are headache, coated tongue, sometimes offensive breath, heartburn and belching of gas. Should the inflammatory processes persist, this in time will lead to the shrinking and serious impairment of the gastric lining and glands, often ending in ulceration. (See *Stomach, Diseases of*.) When the irritation is severe the mucus vomited reveals traces of blood, a symptom of some gravity.

Gastritis,
Chronic,
Symptoms

Gastritis,
Acute,
Treatment

Treatment. If the *acute gastritis* is due to a poisonous drug the appropriate first aid treatment should be given, including an antidote and emetic, with the drinking of warm or hot water to the full capacity of the stomach. If the stomach does not then fully empty itself, place the finger down the throat and force vomiting. The rest of the treatment is the same as for ordinary gastritis, given below.

As soon as the first symptoms are felt, complete Fast No. 3 should be immediately instituted. If there is any nausea the free drinking of water will assist in cleansing the stomach by encouraging regurgitation. The bowels should be thoroughly cleansed with an enema even though the trouble is in the stomach. Absolutely no food, not even fruit juices, should be allowed until the acute symptoms have subsided, though in an occasional case some relief is afforded by an occasional small cup of flaxseed tea.

If there is any fever and if the patient feels better resting in bed, this is commended. A cold abdominal pack may then be applied daily. If there is no fever, hot compresses may be applied over the stomach region for fifteen to twenty minutes daily, following with a brief application of cold water. If the attack is severe and there is great prostration, alternate hot and cold spinal compresses may be applied daily; but four or five hours should be allowed between this treatment and the application of the abdominal packs.

It is best not to resume eating until twenty-four hours after the acute symptoms have subsided. Fast-Breaking Routine No. 5 then may be used and followed by the Milk Diet, No. 1 being best. The milk is especially indicated, because of its soothing effect upon the stomach and its ease of digestion. Enemas should be taken when necessary, but the other hydriatric treatment may be discontinued. However, daily alternate hot and cold sitz-baths may be taken to advantage for a week or two.

A few days after starting the milk an appropriate vitality-building routine should be adopted and carefully adhered to. The milk diet should be continued until there has been full recuperation. Thereafter great care must be observed to eat properly, if future attacks are to be avoided.

Gastritis,
Chronic,
Dietetic
Treatment

In the treatment of *chronic gastritis* the methods to be adopted are largely associated with the building of general vitality. In beginning the treatment, Complete Fast No. 2 should be adhered to for seven to ten or more days, following this Cereal Broth Diet No. 3 or 5 for two or three days, or entirely instead of the complete fast in some cases, then following with Fast-Breaking Routine No. 1. One may expect far more satisfactory results if he is able to follow the exclusive milk diet advised in this fast-breaking rou-

tine. If the adoption of this diet is impossible, then Milk and Fruit Diet No. 1 may be used for two or three days, after which Milk and Fruit Diet No. 2 may be adopted. In fact, both these diets may be used by changing from day to day or whenever the appetite may so dictate.

If the milk diet is not used in treating this disease, then some limited diet which the digestive organism can readily assimilate must be adhered to. In other words, the patient must follow a diet which the ordinary well person might consider partial starvation. Overeating is fatal to favorable results of any kind in the treatment of this complaint.

Should fasting be very unpleasant, a limited diet may be used instead, though naturally this diet must be adhered to considerably longer than the period of time advised for the fast in order to obtain results. In selecting a Limited Diet one may take his choice of Nos. 3, 6, or 7, as the appetite may dictate, although it is necessary to follow each routine for at least one entire day; that is, one should not change the diet from meal to meal on the same day. These limited diets should be adhered to until one has a definite, normal inclination for food and until all the symptoms associated with the disease have disappeared.

Fasting in
Gastritis

A general routine including open-air exercise, bathing, etc., for constitutional building up is of special importance. Special Exercise Treatments if taken daily will be of great value. In fact a daily routine consisting of Special Manual Treatments 11 to 16 taken in the morning and Self-Applied Shoulder, Waist and Back Manipulations, Nos. 9, 10, 15 to 18, taken in the evening, would be valuable in hastening recovery. If the patient is not chilly, a cold abdominal pack applied before retiring each night and allowed to remain until dry or until one wakes in the morning, also is recommended. As a means of varying the exercises one might select a vitality-building routine adapted to one's strength and use it now and then instead of the exercise mentioned.

Walking and deep breathing are especially valuable exercises in the treatment of this disease, though any light outdoor occupation, such as gardening, would be a means of hastening recovery. Outdoor games of various kinds not requiring severe exertion, such as golf or tennis, may be recommended. If one is unusually strong, regular games may be indulged in with benefit, although care should be used to avoid over-exercise, since this would be more or less of a drain on the vitality and consequently would lessen the progress of the case.

When available the slow interrupted faradic electric current is beneficial for relieving the symptoms and improving gastric tone. The galvanic current may be used when the gastric tone is not

greatly reduced. Diathermia through the stomach is excellent, whether there be hypo- or hyperacidity. Daily treatments by infra-red irradiation, or alternating days with radiant heat over the abdomen, will prove valuable. Properly given massage and medical gymnastics are also helpful.

GENERAL DEBILITY.—See *Vital Depletion*.

GENERAL PARALYSIS (*Paresis*).—See *Brain, Softening of*.

GERMAN MEASLES (*Rubella*).—An acute eliminative crisis resembling measles but considerably milder in form. It is somewhat communicable to those who are in a toxemic condition, hence it is well to quarantine the patient. The real cause of this disease is an accumulation of systemic toxins resulting from wrong habits of living, especially such dietetic errors of overeating in general, the use of acid-forming foods and improper combinations of foods. Children are especially prone to develop this disease.

Symptoms. This mild disease has sometimes confusing symptoms. It presents a general eruption; but this in the early stages may take on the character of the rash of either genuine measles or of mild scarlet fever, so a positive diagnosis in this stage is not always possible to make. There is an incubation period of two to three weeks. The earliest symptoms are those of an ordinary head cold, with slight soreness and redness of the throat and some swelling of the glands along the sides and back of the neck. There is a slight elevation of temperature, but the child does not seem to be very ill. The pale reddish rash of small, slightly elevated spots appears early in the disease. It remains for two or three days, then disappears and usually is not followed by peeling.

Treatment. The treatment of this disease is very simple. Fasting, water drinking, fresh air and considerable rest are the main factors. The fever usually is mild and lasts only a few days, hence it is not necessary to confine the patient to bed except during this short fever period. When there is no fever his activity should be governed largely by his own inclination.

Complete Fast No. 3 is generally indicated, using either hot or cold water as desired. This may be flavored with lemon juice. In the case of very young children a small amount of orange juice or grape juice may be permitted if it is especially desired. Cool or neutral enemas should be given daily during the fast and as needed thereafter until normal movements are obtained.

The fast may be broken as soon as the fever is gone, but it is well to take nothing but fruits for a day or two longer. Thereafter, the milk diet would be especially advisable, particularly in the case of children. Milk Diet No. 3 would be very good, limiting the quantity according to the age of the patient. This diet should be continued until there has been full recuperation. A daily sponge

German
Measles

German
Measles,
Treatment

bath should be administered from the start of treatment, using tepid water or substituting a warm, full bath. A cold wet-sheet pack also may be given on the first day; but it is seldom necessary to repeat it, as the symptoms are rarely severe enough to require it. When the patient is properly treated in this manner he will be the better for having had the extra elimination.

GLANDERS (*Farcy*).—A communicable disease of horses. If man happens to be in a toxemic condition he may furnish a fertile soil for the development of the germ (*Bacillus mallei*) associated with this disease. Thus man is subject to it largely because of his own condition resulting from wrong habits of living. Prevention consists in maintaining a high vitality of resistance by right habits of living and by observing strict cleanliness, especially when handling diseased horses. The disease may be either acute or chronic. The acute form is the more severe.

Symptoms. In man there is a period of incubation of one to five days. The disease sets in with general malaise, redness and swelling at the point of infection, followed by inflammation of the lymphatic vessels in the neighborhood. There is a papular eruption, especially on the face and about the joints of the body. This later becomes pustular, crusts form, decay and ulceration follows. In the mucous membrane of the nose small nodules form, slough, ulcerate and cause a foul discharge, the nose becoming red and swollen. Abscesses form under the skin or in the muscles, the temperature becomes high, bronchitis and pneumonia are common, albumin is present in the urine, and collapse and death may follow. The abscesses are the characteristic features of this disease.

In the *chronic* form of glanders in man the symptoms differ somewhat from those of the acute form. The period of incubation is about ten days or even longer. At the beginning there may be a rash, which may be papular, as in the acute form, or pustular, or resemble that of erysipelas. Abscesses are characteristic of this variety of the disease also. They may be beneath the skin or in the muscles, especially near the joints. They may discharge, leaving irregular ulcers. Often the discharge is exceedingly offensive. The abscesses may heal, only to break down again and again, or fresh abscesses may form. The disease is frequently very chronic. It may be apparently cured, yet, after a lapse of several months or even years, may again develop and fresh abscesses may form. At any time, even after apparent cure, sudden acute and fatal symptoms may develop, but generally only when the habits of living are not right. The nose and the lungs usually are not affected in the chronic form of the disease.

Treatment. An acute attack of glanders requires radical eliminative measures. The first skin lesions to appear should be cau-

Glanders

Glanders,
Chronic
Form

Glanders,
Treatment

terized with concentrated (focused) sunlight or the application of caustic. Thereafter, strict cleanliness and general antiseptic precautions must be observed. At the first sign of trouble Complete Fast No. 3 should be immediately instituted, drinking freely of hot water and taking full hot enemas daily. Plenty of fresh air should be secured. If there is no fever, walking should be adopted, up to five miles a day, or exercises or properly given gymnastics, combining these with deep breathing. However, if the whole body becomes affected, especially if fever develops, complete rest is indicated.

A cold wet-sheet pack should be applied daily until the patient is well on the way to recovery or, if the patient has poor reactive powers, a hot-blanket pack may be used instead. If he becomes weak, apply alternate hot and cold spinal compresses for about thirty minutes, four to five hours after the general body pack. Do not overtreat, but get as much skin elimination as the patient's strength will permit.

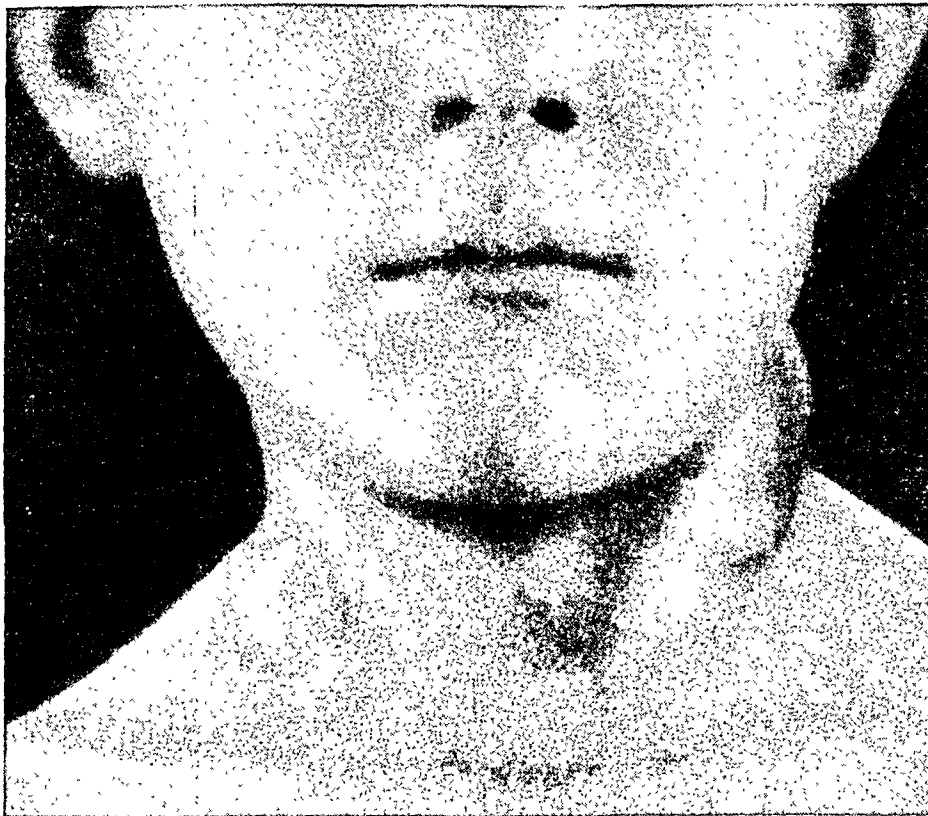
After the acute symptoms have subsided the fast may be broken with a Fast-Breaking Routine appropriate to its length, following with Milk Diet No. 1. This should be continued for at least four weeks. If unable to follow this plan, however, one of the milk and fruit diets should be used, or even a combination milk diet, such as No. 3. The nearer to the full milk diet one can use the better. Vitality-Building Routine No. 2 (or, if the patient's strength will permit, No. 1) should be rigidly adhered to, giving special attention to sun-baths, to increase the skin resistance as well as that of the body in general.

GLANDS, DISEASES OF.—See *Bubo*; *Lymphatic Diseases*; *Thyroid, Diseases of*; *Organotherapy* (Vol. VI, Sec 7) and below.

Glands,
Acute In-
flammation
of

GLANDS, ACUTE INFLAMMATION OF (*Lymphadenitis*).—The glands here referred to are the lymph glands, as they are most frequently subject to inflammation. These being part of the eliminative apparatus of the body, they are likely to become inflamed whenever there is an excessively toxemic condition. This disease is an especially good example of the fact that all inflammations are due to toxemia. An inflammation of a single gland in the axilla or (especially) the groin is called a *bubo*. This is generally found in connection with gonorrhea, with chancroid or with syphilis.

Symptoms. The symptoms of acute inflammation of the lymphatics are swelling of the glands, with more or less hardness and pain. If the inflammation is to subside promptly the symptoms may be only those mentioned; but if not, the gland will become tender, the pain as well as the swelling increase, there will be reddening of the skin over the gland, the hardness will give way to a softening of the gland, suppuration will occur, causing fluctuation, the redness will change to a purplish tint, there will be some



Inflamed and enlarged lymphatic glands in the neck. These may prove tuberculous in character.

fever, chilliness, malaise, headache, and sometimes constipation. The formation of the pus will cause the gland to break down and discharge a large amount, which may be foul. Healing may be rapid, but not infrequently a sinus will be left which will either heal very slowly or tend to remain open for a long time, requiring an operation for its cure. Chronic inflammations have much less severe symptoms.

Glands,
Acute In-
flammation
of, Symp-
toms

Treatment. An inflammation of the glands is practically always secondary to some other disease, therefore the treatment should be directed toward the primary abnormality. In the case of bubo, for instance, the gonorrhea or syphilis should be treated according to the directions given under these headings. (See also *Bubo*.)

Lymphadenitis or lymphangitis (inflammation of the lymph-vessels) may result from infection from a wound. Such a condition should be treated the same as any form of blood-poisoning, by constitutional measures. However, whenever there is an inflammation of the lymph-glands, one may rest assured that general eliminative treatment is required, whether one or more glands are affected.

Glands,
Acute In-
flammation
of, Treat-
ment

This treatment consists of Complete Fast No. 3, drinking plenty of hot and cold water and taking a series of small, cool enemas as required. If the symptoms are general, especially if there is fever, daily cold wet-sheet packs or a warm tub bath should be employed. If the symptoms are localized, daily hot abdominal packs and hot Epsom salts compresses to the affected glands would be indicated. If the glands show a tendency to suppurate, the hot compresses will assist in promoting discharge and free drainage. Echinacea cerate is valuable in this suppurative condition. Only in rare cases is it necessary to lance a bubo. When necessary, antiseptic precautions should be observed.

After the acute symptoms have subsided, preferably twenty-four hours afterwards, the fast may be broken with a fast-breaking routine appropriate to its length, following with Milk Diet No. 1. The milk diet is especially indicated, because of its influence upon the lymph circulation as well as the blood circulation. A superior quantity and quality of blood will be produced and the resistance will be increased, elimination will be active and any remaining poisons will be flushed out of the body. If Milk Diet No. 1 cannot be adhered to except for a short time, one of the milk and fruit diets should be employed for several weeks and if necessary to employ a solid food diet, plenty of water taken between meals. Vitality-Building Routine No. 2 and later No. 1 should be followed. Chronic cases may be treated more or less similarly, the chief difference being in less vigorous eliminative measures.

Glaucoma

GLAUCOMA.—This is a common grave internal disease of the eye, marked by an increase in internal pressure, resulting in hardness of the eye, intense pain and finally blindness. This is a disease which gradually progresses to its termination. In the early stages there is some loss of acuteness of vision, the sight appearing to be obscured by a foggy condition. Rainbow colors can be seen around lights, the pupils of the eyes are slightly dilated and a bit sluggish to the reaction of light. This stage lasts for some time, even for several years, as there are periods when all of the active symptoms disappear for a time. Later the condition may tend to become rapidly worse, with hardness of the eyeballs, great pain in the eyes and in the head, inflammation of the conjunctiva, cloudiness of the cornea, atrophy or shrinking of the iris, finally softening of the eyeball, ulceration of the cornea, etc., with loss of sight.

Glaucoma, Treatment

Treatment. When treatment is begun in the incipient stages of this disease, there doubtless is a possibility of recovery. Where the disease has continued for considerable time, however, but little encouragement can be given to the patient. However, one should remember that the general plan of treatment is simply to increase the vitality of the entire organism, for nothing but good results

can be expected from this. Therefore, if suffering from this complaint, it certainly is wise to adopt the methods suggested in the treatment of eye diseases (which see), even when this disease is in an advanced stage. In fact, in this instance it would be a good plan to adopt these methods even in conjunction with other means that might be suggested by an eye specialist.

The specialist should be consulted early, as a delicate operation can sometimes save the sight. One should bear in mind, however, that many specialists in diseases of the eye do not seem to understand that symptoms of eye trouble are caused in many instances by defects in the blood which nourishes the nerves and other tissues of the eye and that when these defects can be overcome, the blood purified and made more truly nourishing, eye trouble often will disappear.

Atropin should never be used in this disease under any circumstances, as it only increases the internal pressure and aggravates the symptoms.

GLEET.—Gleet is a chronic catarrhal discharge from the urethra occurring as a remains of gonorrhea. It is usually due to a neglected or improperly treated attack of this disease. (See *Gonorrhea*.) In many cases, it is also the result of stricture of the urethra, this latter condition usually being a complication of gonorrhea. Gleet may be well called the chronic phase of gonorrhea, hence it is frequently spoken of as chronic gonorrhea. In fact, the acute symptoms of gonorrhea may subside into a chronic gleet so gradually as to make it hard to draw the line between the two conditions. Gleet

Symptoms. The discharge from the urethra usually is thin and colorless, but sometimes viscid, thick and more or less opaque. There are no pain, redness nor swelling of the parts. The urine may contain what are called threads of epithilium from the urethra. Often the lips of the orifice of the urethra are found glued together in the morning and the flow of urine may be temporarily checked. This may cause some pain from urethral distension. There also may be some itching or an uneasy sensation in the deeper parts.

Gleet often disappears for a protracted period and then suddenly reappears. This usually is brought about by dissipation, excesses or overwork. The discharge is likely to be noticeable only in the mornings, although in many cases there is a slight discharge all of the time. In many cases the condition is confined to the deeper parts, having been produced there by too strong injections. Sometimes the condition is located in Cowper's gland, the prostate gland, or the seminal vesicles. In these latter cases the germ of the disease may be present, so the condition may change from a gleet to a true gonorrhea at any time, especially if aggravated by sexual indulgence, dissipation or the drinking of alcohol. In this class

Gleet,
Symptoms

of cases infection can readily be communicated to the female during sexual intercourse.

Gleet,
Treatment

Treatment. Constitutional treatment is important in all cases of gleet. A strict vitality-building routine should be persisted in. An uncooked diet usually is to be preferred, but to secure the most satisfactory results the following dietetic and fasting routine should be adopted.

Complete Fast No. 3 is recommended, though if the patient be strong and of normal or above normal weight, the fast should be long, with copious water drinking. In this case Fast-Breaking Routine No. 4 should be used, followed by Milk Diet No. 2, or, if inconvenient, by No. 11. An uncooked diet to follow this would be best, for in a chronic condition of this kind a strict diet is most effective.

Beyond this, the general suggestions given in the treatment of gonorrhea may be followed, especially in regard to sitz-baths and hot packs. However, one important difference must be observed in the treatments for gonorrhea and gleet, in that freedom from vigorous exercise is desirable during the inflammatory stage of gonorrhea, while a large amount of vigorous exercise is advantageous in the case of persons suffering from gleet. Temperate habits, open-air life and a moderately low diet are, in general, valuable adjuncts to the treatment of this latter condition.

Globus
Hystericus

GLOBUS HYSTERICUS.—The technical term for the sensation of choking, with a lump in the throat, that is often experienced by hysterical persons. The sensation usually begins somewhere in the abdomen and rises to the throat. It probably is due to a spasmodic contraction of the muscles of the esophagus and the pharynx. Being only a symptom of hysteria, treatment should be directed toward the primary condition. (See *Hysteria*.)

GLOSSITIS.—The technical term for an inflammation of the tongue. (See *Tongue, Inflammation of*.)

GLOTTIS, SPASM OF.—A sudden spasmodic contraction of the diaphragm and muscles of the pharynx and the larynx producing near suffocation. It occurs mostly in infants and young children, as a result of rickets or other forms of malnutrition; but it generally is a nervous symptom, produced by mental excitement, frights or shocks.

Symptoms. The attack comes on suddenly, usually at night or in the early morning. There is no cough nor hoarseness. The respiration temporarily ceases, due to the spasm of the glottis, and the child struggles for breath. The face becomes suffused with blood and becomes purplish, the head rolls from side to side and the eyes bulge, standing out in an alarming manner. Though the attack lasts for a short time only, the child appears to be in a

desperate condition. As the spasm terminates, the child draws a long breath with a crowing sound. The condition is then relieved, at least for the time being. In some children the attacks may be very frequent. The condition often attacks several children of the same family, so may be regarded as one of the symptoms of rickets (which see). Should the seizure fail to pass off, as sometimes happens, the face may become distorted, the tongue roll in the mouth and, because of the closing up of the throat, death from suffocation may result.

Treatment. In most cases if a little cold water is dashed over the face immediate relief will be obtained. The clothing should be loosened and plenty of fresh air supplied. If the attack continues, a hot compress should be applied over the throat and the chest, or over the entire front of the body. Inhibition of the nerves by means of pressure upon the spine in the cervical and upper dorsal region also will be helpful. If the patient can drink, a glass of hot water with a half teaspoonful of salt will be of value.

Glottis,
Spasm of,
Treatment

It seldom is necessary to try all of these measures, one or two generally being sufficient. In extreme cases hot spinal compresses may be required after a brief rest from the other measures. Hot cloths to the nape of the neck, with or without cold cloths over the face or the throat or both, often are very effective. Steady traction upon the tongue for a moment every two or three seconds frequently restores normal breathing. Firm pressure on the tissues at the angle of the jaws will have a similar effect in case the jaws be set. Introduction of the finger into the throat may aid by causing vomiting or "gagging," or by freeing the throat from impaction in case this is a causative element.

If the spasms are due to rickets or other forms of malnutrition the diet should be corrected and more sunlight should be supplied. If due to nervous depletion, careful attention should be given to every phase of right living. The milk diet, sun-baths, cool water baths, fresh air day and night and plenty of outdoor play are highly important. The child should be taught relaxation. Spinal manipulation, using any of the Back and Shoulder Movements described in Volume VI, will also be of value.

Where the acute attacks recur at frequent intervals they are indications of the need for constitutional up-building, so following a special dietetic routine, together with the exercises, bathing, etc., essential for building vitality and general vigor, is especially recommended. The methods for building vitality recommended in the treatment of rickets may be followed in this complaint, with a certainty of securing a gratifying change for the better in a short time. Outdoor air and plenty of play in the open are necessary.

Goiter
(Simple)

GOITER (*Simple Goiter*).—A chronic enlargement or swelling of the thyroid gland located in the front part of the throat just below the larynx. The swelling may be of the size of an egg or it may increase until it becomes as large as a grapefruit. As a rule the presence of goiter is not a malignant sign, though when it appears in conjunction with cancer of the glands the end will be quickly fatal in most cases. A large thyroid gland also may be found in other diseases, as in exophthalmic goiter, in which case it is merely a symptom.

The *symptoms* produced by a goiter are principally those due to the pressure of the enlarged gland upon the adjacent parts. They are difficulty in breathing or dyspnea, cough, congestion of the veins of the neck, difficulty in swallowing, hoarseness, etc. These symptoms, of course, vary with the size of the goiter. In fact, many cases show no particular symptoms except a feeling of fatigue.

Goiter or bronchocele, as it also is called, is found much more frequently in women than in men (about 6 to 1). It may grow slowly and steadily or it may increase suddenly. (See also *Exophthalmic Goiter*.)

Goiter,
Treatment

Treatment. This disease is distinctly constitutional. The rational treatment is that which adds to the vitality and general vigor of the body, the purpose being to purify the blood- and the



Goiter or enlargement (hypertrophy) of the thyroid gland. In some cases the gland becomes so swollen as to cause serious inconvenience from pressure upon the windpipe and certain important nerves and blood-vessels.

lymph-streams. Consequently the growth of the goiter naturally will cease. In fact, by fasting and other vitality-building processes the blood can be so purified that it will begin the process of tearing down foreign tissue of all kinds, and under such circumstances the goiter, in many instances, may be slowly absorbed.

Fasting is especially important in the treatment of this disease and is really essential in order to accomplish rapid results. Partial fasting or a limited diet may be used. Where such diets are adhered to the food selected is not of so much importance as the limiting of the quantity consumed. For instance: one may select a partial fasting routine from among those named, or a limited diet, and no doubt secure satisfactory results if one would continue them for a sufficient period. However, one may depend upon far more favorable changes through following Complete Fast No. 2 for a period ranging from seven to thirty days. The longer the fast is continued the more decrease in the size of the goiter may be expected.

Goiter,
Diet in

If possessed of sufficient vitality to continue the fast for a long enough period, the goiter in some instances will be almost entirely absorbed. This absorption process usually will continue after the fast is broken, provided a proper routine is adhered to. One should use the fast-breaking routine adapted to the length of the fast. If the assimilation is especially poor, Milk Diet No. 2 should be used for a short period. If the assimilative powers are very good, then the milk diet would not be advised; in fact, adherence to a limited diet after having broken the fast would be productive of far more satisfactory results under such circumstances. Limited Diets Nos. 3, 5 or 7 may be used, changing the diet each day if desired in accordance with the dictates of the appetite. Or Milk and Fruit Diets No. 1 and 3 and Salad Diet No. 5 without nuts may be used, alternating similarly. Cod-liver oil is a valuable addition to the diet and should be taken regularly.

Activity of the bowels is imperative, so if necessary, enemas should be used throughout the fast, as well as afterwards when occasion demands.

Massage of the affected part is not advised, though light vibratory massage may be employed. Cold wet packs may be applied, if desired, but no special results of importance can be expected from this local measure. Local hot and cold compresses alternated would have a more pronounced effect. One must depend entirely upon the absorbing power of properly purified blood as described. Sun-baths or carbon-arc lamp or, especially, mercury-arc lamp, may be used with good effect. Infra-red irradiation also is recommended. The application of sinusoidal current to the seventh cervical vertebra may have a favorable influence, as may the

Goiter,
Physio-
therapy in

non-surging galvanic current. Select a vitality-building routine adapted to the patient's strength and follow it day by day. If his assimilation be very good, be sure to keep the diet down to the exact amount of food absolutely essential to maintain strength.

Gonorrhea

GONORRHEA (*Specific urethritis; clap; gonorrheal vaginitis*).—An acute inflammation of the male urethra or of the vagina in women, due to infection with pus and the germ called the gonococcus. It is much more likely to develop in those who are in a toxemic condition than in those free from such poisons. In fact, it has been known to develop in persons having a high degree of toxemia and a low vitality following sexual excess even though there has been no direct infection. It also has failed to develop in those who are vital and vigorous even after exposure to the infective secretions. A clean blood-stream and a high vitality, therefore, furnish considerable protection against this disease; but the only wise plan is to avoid chance of infection.

The disease occurs most often in those who indulge in promiscuous sexual intercourse, though it often may be acquired innocently by both men and women (especially by husbands and wives). Proper sex education would cut down the present enormous prevalence of gonorrhea and would add greatly to human health and happiness. If the disease is neglected or improperly treated the inflammation may extend to any or all of the reproductive organs, or it may spread throughout the entire body, producing gonorrheal rheumatism. The eyes also may be affected. Therefore, proper treatment, but above all prevention, is highly important.

Gonorrhea,
Symptoms

Symptoms. The principal symptom of this disease is a profuse discharge of purulent matter from the urethra in the male or from the vagina in the female. The discharge is of a highly infectious nature. There is a period of incubation of three to ten days after infection. For a day or so before the appearance of the discharge there are some redness and swelling at the meatus or opening of the urethra, together with a sensation of burning, tingling or itching. The discharge at first is milky white, but later becomes more or less yellowish or greenish-yellow as it becomes more purulent. In some cases the discharge is very free; in others scant. During the early stages there usually is a great deal of pain upon passing urine, but this symptom becomes much less marked later on. The glans penis becomes much swollen, tender and inflamed. Occasionally there is a little blood in the discharge. Pain is often felt in the back and the loins. After varying lengths of time these symptoms begin slowly to subside and recovery takes place.

If the inflammation does not pass beyond the forward portion

of the urethra the disease is tractable and cure is comparatively easy. But if it extends into the deeper portions of the urethra it becomes more serious, more stubborn and various complications are likely to arise. Infection may extend to the bladder, Cowper's glands, the seminal vesicles or the prostate gland. If these parts, or any of them, become affected the neck of the bladder becomes much irritated and there is a constant desire to pass urine, the passage being accompanied by considerable pain. There also may be tenesmus or straining of the rectum and lower bowel, with more or less constant desire to defecate.

Gonorrhea,
General
Infection by

If Cowper's glands become infected abscess may form; if the prostate becomes infected chronic enlargement of this gland may result. There is likely to be tenderness in the region of the perineum, behind the scrotum. Occasionally the testicles become inflamed and swollen from an extension of the inflammation, especially if the disease is improperly treated.

Gonorrhea usually is local in character, though occasionally the poison spreads to other portions of the body, producing gonorrheal rheumatism and other general blood infections. The mucous membranes of the eyes are peculiarly susceptible to gonorrheal infection, so if they become involved from the transference of some of the pus by the fingers, etc., serious complications may occur, such as gonorrheal ophthalmia, a disease of the eyes so swift in action and so serious as to cause, in many cases, complete and incurable blindness in a very few days.

As a matter of fact, a large percentage of all cases of blindness, especially in infancy, is caused by gonorrheal infection. The disease called *Ophthalmia neonatorum* is a gonorrheal infection of the eyes of the new-born, at the time of birth, from contact with infectious discharges from the vagina of the mother.

In women, gonorrhea may involve either the urethra or the vagina in the beginning and may spread to the uterus, the Fallopian tubes and the ovaries and even to the pelvic peritoneum. These conditions frequently require surgical operations. Occasionally it is really necessary to have the tubes or the ovaries (or all of these) removed for disease undoubtedly produced by gonorrheal infection, though without doubt many such operations are performed unnecessarily. In the treatment of this disease in women special attention must be given to cleanliness of the parts, so frequent douches of some antiseptic solution must be employed. The general treatment is the same as for this disease in men. (See *Vagina, Diseases of*.)

Gonorrhea
in Women

The most common complications of gonorrhea are gleet, retention of urine, chordee, stricture and epididymitis.

Gleet has been considered in its proper alphabetical place.

Retention of urine sometimes follows severe swelling of the mucous membrane of the urethra. It often is accompanied with spasm. However, it is more likely to occur when there is either enlargement of the prostate gland or stricture of the urethra. (See *Urine, Retention of*.)

Chordee (see also in alphabetical list) is a painful erection of the penis which becomes curved. It is due, generally, to a spasm of the urethral muscles, though it sometimes occurs because the inflammation prevents one portion of the penis from becoming as distended as other portions, thus pulling the organ downward. Chordee usually occurs at night during sleep and the pain causes the patient to awaken. It usually can be relieved by the application of cold compresses. A hot bath before retiring often will prevent its occurrence. A common method among the ignorant is "breaking" the chordee by forcible bending of the penis. This is extremely dangerous, as it frequently produces bleeding from rupture of some part of the organ, especially the urethral membrane and often results in a condition of stricture and lack of potency. Sometimes chordee itself will be so severe as to cause slight rupture of the urethra with a resulting stricture.

Stricture of the Urethra is discussed in its alphabetical position.

Treatment. The medical treatment of gonorrhea consists entirely of local antiseptic injections, except for some internal medication in the form of urinary antiseptics. One of the great dangers of injections, however, is that the infection if not destroyed may be driven inward and spread to the other sexual organs, in which it is difficult to eradicate. If injections are used at all, they should be mild but effective germ destroyers and should be employed only at the first sign of the disease; or, if not then, not until the acute symptoms have begun to subside. Too strong solutions may cause additional inflammation and result in urethral stricture.

The usual remedy is a mild solution of potassium permanganate or of sulphate of zinc. Since cases have recovered without the use of any antiseptics at all it can be seen that these may not be absolutely necessary. If a proper injection were used immediately after exposure this should prove prophylactic.

The treatment of acute gonorrhea by natural methods consists of assisting the body to eliminate in every possible way, especially through the parts affected. Complete Fast No. 3 should be started at the first sign of trouble. The drinking of large quantities of water is especially indicated, as a larger amount of urine will be passed and this will help to cleanse the urethra and keep the discharge moving outward instead of inward.

Water drinking is not so effective in the case of a woman, because the vagina, rather than the urethra, usually is affected and

Gonorrhea,
Complica-
tions

Gonorrhea,
Treatment

this tube is not directly influenced by the amount and frequency of urination. Nevertheless, liberal water drinking will be helpful because of its general cleansing effects.

Hot rectal irrigations or hot enemas have a beneficial effect as they tend to relieve irritation in the prostate gland and urethra, so they may be taken daily during the fast. Hot sitz-baths also have the same effect. But it is extremely important to observe strict antiseptic precautions in order to avoid spreading the infection to the rectum. The parts should be washed with an antiseptic solution before taking the rectal injections. The enema tubes should also be thoroughly disinfected.

One of the most important measures in this method of treatment is an alternate hot and cold sitz-bath that should be taken morning and evening for the first few days of treatment. This usually is taken three to five minutes in the hot sitz and one to two minutes in the cold, making two to four changes. Every night a cold pack may be applied to the reproductive organs. This may be bound on with a clean bandage, the pack being allowed to remain all night or until dry. Though very free drinking of water usually lessens the severity of the symptoms, if urination is very painful the penis may be immersed in a vessel containing as hot water as can be borne during the passage of urine.

Gonorrhea,
Sitz-Baths
for

Vigorous exercise should not be taken during the acute symptoms of the disease. Deep breathing of fresh air, sun-baths if possible, general cool baths and plenty of sleep are all important. Tobacco, alcohol, spices, condiments, tea, coffee and stimulating foods, such as meats, must not be used. Of course, complete sexual rest must be observed. The patient should avoid worry by keeping the mind busy with work, play and the necessary treatment measures. There is no need to worry, as the disease can be eliminated if treatment is taken carefully and specifically.

The fasting, water drinking, enemas, sitz-baths and local cold packs should be continued until the inflammation subsides. This may require from one to two weeks. Fast-Breaking Routine No. 2 or No. 3 should then be used, followed by Milk Diet No. 1. The milk diet is indicated, not only because of its general value but because of the large amount of water it contains, this requiring the continuance of the frequent urination. If unable to arrange for the full milk diet or if it cannot be followed for a sufficient time to insure full recovery, one of the milk and fruit diets should be used, drinking extra water if possible.

Gonorrhea,
Diet for

If solid food must be taken it should consist largely of fruits, vegetables and milk, with plenty of water between meals. It would be well to continue the sitz-baths three times a week for a month until completely recovered. Strict cleanliness of the

affected parts and of the clothing should be observed at all times, and the necessary antiseptic precautions should be carried out. All towels and other linens used should be boiled and all collected discharges should be burned.

When a case is properly treated in this manner none of the ordinary complications should develop. If they do, however, in a neglected case, treat according to the particular condition which develops. (See also *Complications*.) The treatment for women is the same as for men. (For the treatment of chronic gonorrhea see *Gleet*.)

The urethral discharge should be received on small bits of cotton held in place by the foreskin or a gonorrheal or sanitary "apron" (a small cloth sack or stall). Neither rubber covers, nor heavy wrappings, nor any material that will prevent free drainage of the secretion from the urethra should be used under any conditions.

To relieve and perhaps prevent painful erections or *chordee* (which see in alphabetical list) one should urinate just before retiring and again in three or four hours, awaking by an alarm clock if necessary. He should sleep on a hard mattress, with light covering, and avoid sleeping on his back.

When there is involvement of the prostate gland or the seminal vesicles the treatment is about the same, though after the disease has disappeared active exercises, especially long walks, are to be recommended as tending to better the condition of the involved parts. On account of the great vitality and long life of the germs of gonorrhea frequent microscopic examinations of any urethral secretion are desirable when convenient.

Men who contemplate marriage and who have been the victims of gonorrhea should subject their seminal fluid to a thorough microscopical examination to ascertain the presence or the absence of gonococci. If present, marriage should not take place until all secretions are repeatedly free of the germs. In any event considerable time should elapse after the cure of the disease before marriage can conscientiously be consummated.

Gout.—A blood disease which affects in particular the small joints of the body. It is produced chiefly by overeating. As the disease spreads, the heart, stomach and kidneys may become affected, giving rise to excruciating pain. Gout is most common in persons from 35 to 50 years of age, men being more frequently attacked than women. Environment and heredity seem to play a part in the development of the disease. Continual and excessive use of rich foods and of alcohol are predisposing factors. An attack of acute gout frequently follows a heavy meal, especially if alcohol is also taken.

Symptoms. The characteristic signs and symptoms of gout are more or less sediment in the urine, affected joints swollen, red and hot, extremely sensitive to the touch or even to any shaking or vibration, while the victim suffers from extreme restlessness and sleeplessness. The joint where the great toe joins the foot is the joint most commonly affected in the beginning, though any of the joints may be involved.

Gout,
Symptoms

Acute attacks, which usually come on early in the morning, vary from those which last for several days (in which all the aforementioned symptoms are accentuated) to a chronic condition in which these symptoms are of a sub-acute state. When neglected, gout develops into what is called "chalky gout," owing to the chalk-like deposits which settle between the bones and sometimes are thrown out upon the skin. The disease in some cases also is complicated by neuralgic pains and an eczematous eruption. (See *Gouty Eczema.*)

Treatment. The fact that this disease so often is produced by overeating unquestionably points the way to definite cure. Gout most frequently is observed in those who sometimes are termed "high livers." It also is occasionally noted in cases where one is not financially able to indulge in the rich and complicated mixtures which usually produce symptoms of this ailment. The statement, however, that it is directly caused by overeating is accurate in every detail, though sedentary habits and dissipation of various kinds may be incidental factors in producing the disease.

Gout,
Treatment

Almost any strict routine that includes a diet that contains only a sufficient amount of food properly to nourish the body and which compels daily exercise, should be effective in cases of this kind. However, if one desires to secure quick results and if he will adhere to the prescription given herein, he can rest assured that the symptoms of gout will be short-lived.

In the beginning, Complete Fast No. 2 should be adhered to. The longer this fast is continued the more rapid will be the results. In many instances every symptom associated with gout will be eliminated during this fast. Follow with the fast-breaking routine adapted to the length of the fast. The milk diet is not advised, as assimilation usually is good in those suffering from gout. If the fast has been properly followed in accordance with the routine advised, then one may use Milk and Fruit Diets Nos. 1 and 3 as the appetite may dictate, adhering to each routine for at least one day at a time.

After all the symptoms of the disease have been eliminated the patient may follow his ordinary diet, though using the greatest possible care to avoid overeating. In fact, one who is inclined toward this trouble will find it to his advantage to make a habit

Gout,
Fasting and
Diet in

of fasting one or two days each week, or from two to four days each month. This would give the digestive system a chance to rest in case he ever made the mistake of eating beyond his actual needs. But since the majority of gouty patients have been guilty of eating too much meat, sweet, spiced and otherwise rich foods, the later diet should be more carefully selected. It should predominate in cooked and uncooked green vegetables and fruits and buttermilk or cultured milk. The patient always should drink freely of water.

A general routine, including exercise and appropriate bathing, is of special importance in eradicating this disease. When it is possible for one to select his climate a dry, inland one is best. The individual should choose a vitality-building routine adapted to his strength and persistently adhere to the instructions found therein day by day. Special Manual Treatments 11 to 16 may be used to considerable advantage, provided the patient has a fair amount of vigor.

Gout,
Local Treatment in

If not especially strong, a wet-sheet pack given daily to a certain extent would act as a substitute for exercise in the way of accelerating elimination. General body manipulation as described under the head of Special Exercise Treatments in Volume VI may be used advantageously in this complaint, though one should not make the mistake of giving too much or too frequent treatment; there must be a definite reaction from each treatment in order to expect results of a favorable nature. General, as well as local, massage, and Russian and Turkish baths may be used with good results.

In addition to these measures for constitutional treatment and stimulation of the nerve centers, it might be helpful to use local treatment of the joints or inflamed parts by means of Special Exercise Movements. Elevation of the part always is helpful. So are cooling compresses changed as soon as warm. Hyperemia and local hot-air baths are also helpful. (See Vol. VI.) If the parts are extremely painful, and too sensitive for manipulation, local hot Epsom salts compresses or infra-red irradiations or immersion in hot water usually will offer some temporary relief though, naturally, the constitutional treatment is the all-important factor.

Tonic graduated cold baths should be employed, also occasional (one to three weekly) sweating baths by any available means, followed by a graduated cold bath. Each will be helpful. Patients should be out of doors as much as possible and always have strictly fresh, pure air. Constipation must be avoided, but by natural means.

Gouty
Eczema

GOUTY ECZEMA.—A disease of the skin, eczematous in character, the seat of the affection in particular being the anus, although

the ear and the surface behind the ear are frequently affected. It is characterized first by intense irritation in the diseased region. Much inflammation and soreness follow. The skin becomes shiny and scaly. As the eruption develops and the skin dries, a thin watery discharge exudes from small fissures. Though the ailment often persists for years, it may be regarded as a disagreeable check upon appetite and indulgence and for this reason rarely is followed by serious complications.

Treatment. Gouty eczema should be treated in the same manner as ordinary eczema (which see). It is necessary to adhere rigidly to the fasting and abstemious diets, alternated according to need.

GRANULAR EYELIDS (*Granular conjunctivitis*).—See under *Eye, Diseases of*.

GRAVEL (*Urinary calculi* or stones in the bladder).—See *Bladder, Diseases of*; also *Kidneys, Diseases of*.

GRAVES' DISEASE.—See *Exophthalmic Goiter*.

GREEN SICKNESS (*Chlorosis*).—See under *Anemia*.

GRIP.—See *Influenza*.

GUMBOIL (*Parulis*)—A gumboil is an abscess of the gum, usually situated near the apex of the root of a tooth. The abscess does not develop unless the body is in a toxemic condition and there is defective nutrition of the tooth, as in case of a devitalized tooth (one with the nerve dead or killed), though often "live" teeth have gumboils about their roots. Such teeth usually are decayed, however. Right habits of living, with special emphasis upon the use of raw foods which require thorough mastication, help to prevent them.

Gumboil

The *symptoms* are swelling of the gum, which is deeply reddened or purplish and very painful. The swelling is hard at first, but later, as pus begins to form (as usually is the case), it softens and becomes less painful. If left to itself it usually will rupture, discharge a purulent material and as a rule then heal rapidly.

Treatment. Early in the development of a gumboil the condition may sometimes be aborted by holding very hot water in the mouth, though usually an abscess develops. Softening can be hastened by placing on the gum a very hot toasted fig, which may be split to go over the tooth and reach the gum on both sides. Poultices should never be applied to the cheek, as there may be rupture of the abscess through the cheek. In case the skin should appear red it is often desirable to open the abscess, within the mouth at once, though a full milk diet will usually hasten the natural process, thus enabling one to avoid lancing. Usually the tooth should be extracted unless in the opinion of the dentist it can be saved. If a gumboil appears to be burrowing inward instead of pointing for discharge on the surface of the gum, the

Gumboil,
Treatment

Gums, In-
flammation
of

dentist will usually advise lancing. After lancing no particular treatment is required, though healing may be hastened by using mouth washes of salt or lemon solution or some mild antiseptic.

GUMS, INFLAMMATION OF (*Gingivitis; ulitis*).—This condition may be due to a general toxemia or pyorrhea, also to lead-poisoning or scurvy. There are swelling, deep redness or blueness of the gums, with pain, tenderness, sometimes bleeding and the development of ulcerative patches. The gums frequently become spongy from the swelling and vascular engorgement. While this condition may result from some local cause, such as tartar on the teeth, it is more likely to be induced by constitutional disease, such as scurvy, syphilis and chronic mercurial poisoning.

Inflammation of the gums often is present when there is a general stomatitis (inflammation of the mouth). The teething of infants also is frequently accompanied by some degree of inflammation which may persist until either the teeth fully erupt or until the gums are lanced.

Treatment. If due to pyorrhea, lead-poisoning (see under *Poisons*) or scurvy, treat according to the directions given under the causative disease or condition. If possible to expose the gums to sunlight this would be of further advantage. Exposure to the rays of the localizing sun lamp, especially the water-cooled mercury-arc sun lamp, would be particularly beneficial. When there is pain or easy bleeding cotton or gauze may replace the tooth brush to apply a salt, a lemon or a mild antiseptic solution. Any of these solutions may be held in the mouth and swished about by action of the tongue and the cheeks. If the teeth need repair they should be attended to as soon as the condition of the gums will permit.

Gum Inflam-
mation,
Treatment

GUMMA.—A soft cheese-like tumor which occurs in the later stages of syphilis. See *Syphilis*.

Gutta
Rosea

GUTTA ROSEA (*Acne rosacea, whisky nose*).—A form of acne, affecting chiefly the nose, cheeks and forehead, marked at first by redness, later by a chronic hyperemia, inflammation and some swelling of the skin, with pustules and varicose vessels. The nose frequently becomes enlarged. It is common among drunkards, and people exposed to rough weather. See *Acne* for treatment.

Hair, Dis-
eases of

HAIR, DISEASES OF.—The diseases to which the hair is subject generally are to be attributed to the condition of the scalp. The most common of all its ailments is dandruff (which see).

Prematurely gray hair is due to change in the pigmentation of the hair caused by factors of a constitutional nature. It requires general constitutional up-building. Yolk of egg is said to be an excellent preventive of this condition. In cases in which there is a pronounced hereditary influence underlying the graying there

may be no prevention by any known treatment. Once the hair becomes gray it will resist, in most instances, all measures employed to restore normal color.

Falling hair, or marked loss in patches, generally is to be attributed to some infectious disease, such as syphilis, diphtheria or other fever, influenza, etc. Such loss is never the result of any local affection, but is wholly constitutional in nature.

For other diseases of the hair see *Alopecia areata*, *Favus*, *Ring-worm*.

Causes. Diseases of the hair are both local and constitutional. The principal local causes are lack of cleanliness of the scalp and general neglect of care essential to maintain luster and vigor of the hair. The most common mistake in the care of the hair is the neglect to cleanse the scalp regularly. The scalp is like any other part of the body—it needs frequent cleansing in order to maintain it in health.

Treatment. Under *Beauty and Personality* (Vol. V, Sec. 9) is information of great value on the care of the hair. Under *Dandruff* in Volume VII information worth careful reading is given concerning the scalp. Nearly all diseases of the hair are associated with dandruff. A continuation of symptoms of this nature usually indicates a neglected scalp. Thorough cleanliness is imperative in order to remedy this complaint.

Hair Dis-
eases, Treat-
ment

Frequent bathing is essential to maintain the health of the pores, through which a large share of the wastes and impurities of the body find outlets. If these pores are not maintained in a healthy condition one is far more likely to contract diseases than when they are kept normal. The hair seems to be peculiarly affected by defects of this nature.

Ordinarily one should take a cold bath daily and one or two hot baths (using soap freely) each week. A hot bath taken after exercise which has been sufficiently vigorous to induce profuse perspiration is of special value in arousing the activity of the pores and thoroughly cleansing the skin. A steam bath followed by a hot bath, using soap freely and terminating the bath with a cold application, is a fairly good substitute; though this plan, while cleansing and promoting active elimination, does not build strength or have as good an effect upon the condition of the hair as would result after perspiration induced by active exercise. One should obtain sun-baths, at least locally, with regularity if possible. If natural sunlight is not available one should secure artificial sunlight if this can be arranged for, though he should avoid too close proximity to the light.

The general care of the hair and scalp are discussed in Section 9, Volume V.

Hallucination

HALLUCINATION.—A mental conception of a purely subjective nature, involving the perception of a non-existent object or impression; in short, a creation of the imagination. It is distinguished from an illusion in that the latter is the false perception of a real object, or a false interpretation of a real impression. For example, if a person declares he sees a mouse running across the floor when there is *nothing* there, it is an hallucination; but if he sees a leaf blow across the floor and *thinks* it is a mouse, it is an illusion. (See *Insanity*.)

HARDENING OF THE ARTERIES.—See *Arteriosclerosis*, under *Arteries*, *Diseases of*.

Harelip

HARELIP.—A fissure which shows itself as a slight cleft in the upper lip, or it may extend to the border of the lip.

Harelip arises in the prenatal development of a child from disturbances which prevent complete union of the two halves of the body at a certain stage in intra-uterine development. It therefore may be regarded as congenital in origin.

No natural method can be advised for remedying this defect and no known way by which its development with certainty can be prevented, for the exact cause is not known.

Cleft Palate is a defect similar in origin to harelip or, rather, it is an extreme form of the same condition. In the embryo this part of the face is formed by processes which grow inward from the superior maxillary and the palate bones. Normally these processes meet in the center, but when development is arrested a cleft palate is the result. When the disturbance is only slight, a harelip is the result. The only treatment consists of an operation, performed most successfully at the age of about three years. It should be stated that the birth of one child with either of these defects does not indicate that another child by the same parents will be so disfigured. Far more likely is it to be free of such blemishes.

Hay-Fever

HAY-FEVER (*Hay-asthma; Hyperæsthetic rhinitis*).—A catarrhal affection of the eyes, nose and throat characterized by copious discharge as well as more or less severe paroxysms of sneezing. It is most common in young adult life, the susceptibility to it diminishing with age. It is somewhat more frequent in women than men.

Hay-fever begins with burning and itching of the nose, severe sneezing and often entire obstruction of nasal respiration. The eyes become inflamed and violent pains arise in the forehead and the back of the head.

While hay-fever is distinctly a constitutional disease, irritation of the mucous membranes of the nose and the throat by extraneous substances of certain kinds may assist in bringing on an attack.

Hypersensitiveness to the proteins contained in the emanations of certain animals, feathers, flowers, the pollen of certain plants, etc., as well as the ingestion of certain articles of food, are supposed to aid in bringing about attacks of hay-fever in certain susceptible persons. Tests now are frequently made to determine to which certain proteins sufferers may be susceptible, by inoculating the hay-fever victims with various protein substances and watching for reactions. A positive reaction in the shape of a large wheal, as in hives, at the point of inoculation, sometimes as soon as one-half hour after inoculation, shows that the particular protein which produces the reaction is the one which may have a great deal to do with the development of the attack. When proper corrective treatment is employed it is usually unnecessary to undergo these tests.

Hay-Fever,
Causes

Frequent underlying causes often ignored are intestinal toxemia, the use of an excessive amount of meat or other protein or of food in general and a spinal abnormality, such as contractures of spinal muscles and ligaments and, sometimes, a subluxation.

Treatment. One must get away from the idea that this disease is caused exclusively by the pollen of a particular plant, or some other minute particle of specific nature, such as emanations from the fur of animals or feathers, dust, etc. These substances may have irritating influences and may assist in bringing about the symptoms; but we must always remember that the real disease is constitutional. Hence the best time to begin treatment is, if possible, at least six weeks before the anticipated attack. Those who have had even one attack of this disease usually know that at approximately the same time the following year the attack is most likely to be repeated.

Hay-Fever,
Treatment

An acute attack of hay-fever requires general eliminative treatment, in order to remove the underlying toxemia. Complete Fast No. 3 should be started immediately, either hot or cold water to be taken according to desire. To get most prompt and decided results a daily full warm or small cool enema should be taken and colonic irrigation given by a skilled operator. The fast should continue, if possible, until the acute symptoms subside.

If the patient loses considerable weight and strength before this occurs, unsweetened orange, grape or grapefruit juice may be allowed. He may need to extract the juice of the fruit with considerable care, for in some cases the fruit skin contains oil or other substances which aggravate the hay-fever. From one to two weeks on the fast and orange juice may be required for best results.

Milk Diet No. 3 may then be adhered to for a month or more if possible; or if this is very inconvenient, one of the milk and fruit diets may be used instead. Sometimes Milk Diet No. 1 will be satisfactory. If for any reason the fast and orange diet cannot

Hay-Fever,
Diet in

be continued until the acute symptoms subside, the diet should be limited to fruits, vegetables and sour milk until they do. Special attention should be given to raw foods.

A cold wet-sheet pack may be given every other day. However, if the reactive powers are defective, a hot-blanket pack, an electric-light cabinet bath, or some other form of sweat bath may be substituted therefor. Any sweating procedure should be terminated by a suitable cold application. The nose and the eyes may be bathed or irrigated every two hours with a warm, mild salt solution or oily spray, for instance pinoleum, followed by an application of plain cold or cool water to increase the tone of the tissues. Fresh air is very important, so the patient should not remain indoors with the windows closed in the hope of avoiding pollen. Mouth-breathing should be carefully avoided. As alternate treatment, hot blanket or sheet packs or warm full baths may be used until perspiration is obtained.

Hay-Fever,
Local Treat-
ments in

Exercise may be limited to walking and deep breathing, though a few spinal exercises daily will be of general benefit. Outdoor games, if one is strong enough for them, are to be recommended. As much sleep as possible should be secured. Manipulation of the cervical spine may be helpful.

Radiant light and heat to the face and the back of the neck and general carbon-arc, mercury-arc or natural sunlight irradiations should be given daily or three times a week, though all natural or artificial sunlight baths should be graduated. A non-vacuum electrode attached to the Oudin terminal of a good high frequency machine and used to "iron out" the mucous membrane of the nose is excellent. It is far more effective if followed at once by irradiations from the localizing ultra-violet lamp to the nasal mucous membrane, the nasopharynx and the posterior nares.

By massaging the nasal mucous membrane and about the nose externally, as well as about the eyes, cheeks and forehead, the patient himself can do much to alleviate his attacks. Stretching the nostrils and nasal air passages and massage of the palate should be included in this massage treatment. A suitable vitality-building routine should be strictly adhered to. At all times the bowels must be caused to function regularly and frequently, by proper foods and water drinking and by the enema or colonic irrigation when necessary. The skin should be kept active by means of suitable baths.

If future attacks are to be avoided, the most careful habits of living will be necessary until the normal tone, functions and resistance of the mucous membrane of the air-passages are restored. Special attention should be given to diet, exercise and the deep breathing of fresh air. Sun-baths are very helpful. A cold or

cool eye- and nose-bath should be used twice daily. (See discussions on *Diet* and *Exercise* in Vols. II and III for general instructions.)

So-called immunizations or the use of serums should not be attempted. Serums only poison the body. Though they may divert or suppress the symptoms, they make one more susceptible to other diseases.

If it is found that there is any certain protein to which the sufferer is hypersensitive, the avoidance of contact with that substance will aid in preventing the recurrence of attacks. If it is the pollen of certain plants which produces the irritation of the mucous membrane, living in a section where these particular plants do not flourish may be of benefit. However, getting the body cleared of toxemia, the nerve tone increased and rectifying any spinal abnormality should allow one to live in comfort in any climate, anywhere.

HEADACHE.—Headache is a pain in the head. It is purely a symptom, so cannot be considered a disease in itself. While it may arise from a variety of causes, it usually indicates defective digestion, assimilation or elimination. With rare exceptions one need never have a headache if his alimentary tract is in proper working order, the mind is free from worry and the eyes are not strained or used in a detrimental manner. In a great many instances constipation is the main cause of headaches. Headache

Among conditions responsible for this symptom are constipation, eyestrain, autotoxemia, disorders of menstruation, catarrh, sinus affection and functional nervous disorders. Among the diseases with which headache is associated are brain diseases, hardening of the arteries, Bright's disease, acute fevers and communicable diseases, liver and stomach diseases, anemia, diabetes, malaria, heart diseases, influenza, and neurasthenia. Among the most persistent and intense headaches are those resulting from brain tumors.

But whatever may be the nature of the disturbances that cause this disturbing symptom, one can be sure that, directly or indirectly, it has something to do with defective digestion, assimilation or elimination. All of these are due, in their turn, to wrong habits of living. When headaches appear at infrequent intervals and are more or less uncommon to the individual, they generally can be traced to some unusual or extraordinary diversion from one's customary habits of life, dietetically, in the use of the eyes, or otherwise.

Worry or mental overwork frequently brings on a nervous headache. But even in such cases the headache is made possible only because some organ or organs are functioning in an abnormal way that could have been prevented. Anemic headaches are due Headache,
Causes

to any debilitating influences which tend to deplete the blood supply or destroy its cells, also to certain diseases of the heart or blood-vessels.

Migraine is a violent, paroxysmal headache which usually affects only one side of the head. It is discussed in detail under *Migraine*.

Headache,
Symptoms

The *symptom* of headache is a pain or aching in some part of the head. As a rule headache is not considered a serious matter, though in some instances it may cause more acute and prolonged suffering than many complaints actually considered serious. The pain may be of various kinds: Dull, sharp, boring, acute, throbbing, steady or paroxysmal. It may be frontal, occipital, at the temples, the crown of the head, or over the eyes, or it may involve the entire head. The immediate local cause of headache is either an anemia or a congestion of the brain, yet one also must consider the general condition, not merely the headache itself nor the condition of brain blood-supply.

Headache,
Treatment

Treatment. The treatment of headache should be directed toward the cause, if this is discoverable. (See *What the Physical Examination Reveals*, Vol. VII, Sec. 1.) This will assist in arriving at a conclusion as to the underlying cause. However, practically all headaches are associated with congestion or anemia of the head, as stated. Considering this fact, the following palliative measures will be helpful regardless of the exact cause.

Where there is congestion, as indicated by throbbing, flushed face and sometimes a sensation of pressure, cold compresses or an ice-bag may be applied to the head, while a hot-water bottle or an electric pad is used for the feet. A hot foot-bath may be taken or a hot sitz-bath may be used. A cold towel should be about the head during either of these baths.

If there is anemia, as indicated by paleness of the face and dizziness, then heat should be applied to the head, hot compresses being satisfactory. These may be applied to the neck also, or to the seat of pain. It would be well for the patient to recline with the head somewhat lower than the feet.

High blood pressure headaches may be benefited by the prolonged neutral or barely warm bath, with a cold or a cool compress or turban to the head, or by hot foot and leg baths, sometimes by the heating compress over the heart.

Toxic and rheumatic headaches may be relieved by a sweat-bath followed by some warm bath, then a brief cold bath to terminate. A series of cool enemas and, if possible, colonic irrigations and copious water drinking should follow. Heat to the head, by fomentations, followed by massage of any painful points, also is excellent for rheumatic headaches.

In all cases, the patient should abstain from food. When necessary an enema should be taken to cleanse the bowels thoroughly. Rest, quiet and often darkness are advisable in some cases. A valuable zone therapy method is firm pressure upward against the roof of the mouth with the ball of the thumb, with the head held somewhat backward. If sleep can be obtained, it will prove a sovereign remedy. Hot spinal compresses and gentle stroking of the head often will assist in inducing sleep. Every effort should be made to find the cause of the condition to prevent recurrence.

Headache,
Special
Treatments

HEAD NOISES.—This term is applied either to cracking or snapping noises in the head, sometimes attended by light-flashes, or to the sensation of roaring or buzzing in the ears. These symptoms may be due to abnormal condition of the ear-drum, the chain of bones in the middle ear, the Eustachian tubes, the canals, the auditory nerves, or the brain. High blood pressure or excess of ear-wax may cause the sensation of ringing in the ears. *Treatment* is to be directed to underlying causes in each particular case. Every effort should be made to find the cause of the condition as soon as possible in order to prevent recurrence. In the constitutional treatment exercise should be given a prominent place. This exercise should be kept up regularly.

HEART, DISEASES OF.—There are numerous well-defined diseases of the heart. The walls may thicken and distend through too heavy a burden, such as a clogged circulation, being imposed upon the heart; or the valves may undergo changes in many ways through the same causes; there may be inflammations of the lining membrane, of the covering membrane, of the muscular coats, of the nerves or of the arteries.

Heart
Diseases

Heart disease, as generally spoken of, may be acute or chronic. The following forms are the most important: *Acute inflammation of the heart* practically always is secondary to a more general inflammation or infection in some other part of the body, such as rheumatism, pneumonia, septicemia, tuberculosis, typhoid fever, etc. The basic cause of all these conditions is a general toxemia resulting from wrong habits of living.

Endocarditis, acute (Acute valvular disease). Symptoms are chilliness, fever, rapid, weak and irregular heart-action, shortness of breath, with panting upon the slightest exertion. In severe cases the legs, fingers and toes become bluish, especially beneath the finger-nails and toe-nails. The lips and the cheeks may assume a bluish or cyanotic appearance. There is swelling of the feet and the ankles and sometimes of the abdomen. Headache, dizziness, cardiac pain, loss of appetite and constipation also accompany this disorder. Recovery often is complete, but many cases become chronic.

Endocarditis

Angina
Pectoris

Angina Pectoris is a painful affection, usually regarded as a disease of the heart. The pain varies in intensity and the action of the heart is greatly disturbed. The paroxysms may be over in a few minutes or they may endure for hours, during which the patient is in great physical and mental agony. As time passes the paroxysms increase in frequency. This disease is claimed to be the outcome of some other organic disease of the heart or coronary arteries, which, if it cannot be detected, may be assumed. It rarely appears in any subject under forty-five years of age. (See also *Angina Pectoris* in Vol. VII.)

Organic heart diseases, in which the mechanical structure of the heart becomes in some way impaired, can hardly be regarded as diseases in themselves, as they are natural efforts on the part of this organ to adapt itself to the undue and unnecessary burden ignorantly imposed upon it.

Bradycardia is abnormal slowness of heart-action. It occurs in many diseases and abnormal conditions.

Treatment. The chief treatment should always be directed toward the cause of the condition. (See under the various headings.) However, the following measures are practically always applicable, regardless of the associated disease.

Fatty Degeneration of the Heart is due to degeneration of the heart muscle, which becomes burdened with fatty deposits. When the degeneration has become serious the accompanying symptoms are similar to those previously described. It is possible, however, for the victim to be unaware of the fact that the function of the heart is seriously impaired and to attribute the general debility and feeble circulation to a general "run down" condition. Fatty degeneration takes place only when there is a marked tendency to obesity. There frequently are no severe symptoms until dilatation occurs, when they generally become marked.

Heart-Failure. See in alphabetical position.

Myocarditis

Myocarditis, Acute. The symptoms of acute myocarditis are more or less indefinite. There are feeble pulse (very easily accelerated) and weak heart-sounds. There may be dull pain in the cardiac region. The disease usually follows some acute condition, especially of a septic nature, as typhoid fever, diphtheria and blood-poisoning. It often is present with other acute cardiac conditions, such as endocarditis and pericarditis, and in cases of acidosis and advanced degeneration of the heart muscle.

Pericarditis

Pericarditis, Acute. The symptoms of this disease are sometimes slight, there being some fever, pain (the latter often being absent) and some acceleration of the pulse-rate. In those forms of the disease in which there is an effusion into the pericardium the symptoms are much more marked. The features are pallid,

the face has an anxious expression and there are restlessness, insomnia and difficulty in breathing, this last being one of the most marked symptoms. The pulse-respiration ratio becomes altered, being often two to one instead of four to one. The patient feels most comfortable lying upon the left side. There is cardiac pain, which varies from a mere feeling of tightness to acute and severe distress. The pain is increased by pressure upon the breast-bone. The pulse may be irregular, there is occasional severe vomiting, the temperature may or may not be elevated, there is irritable cough and sometimes hiccough and difficulty in swallowing. The effusion into the pericardial sac may be either serous, sero-fibrinous, purulent, or hemorrhagic. (See also in alphabetical position.)

Rheumatism of the Heart (*Rheumatic pericarditis*) is a rheumatic condition of the membranous sac or covering of the heart and is associated with rheumatism in other parts of the body. Thus the principal symptom is a sharp stabbing pain in the region of the heart. This disease is acute in character, beginning with a chill followed by fever, tremulous and irregular heart-action, shortness of breath and the usual signs of disordered functional activity. At times a fluid may collect in the pericardial sac.

Heart
Rheumatism

The heart muscle itself is frequently affected in rheumatic fever, this condition being called myocarditis. It usually will disappear if it be present in the acute form, following the treatment of the rheumatism. The lining membrane of the heart and the valves may become affected, also. This is called endocarditis. It usually progresses and becomes chronic, ending in valvular disease.

Tachycardia (*heart-hurry*) is very rapid heart-action. It is a symptom of various heart and other diseases.

Valvular Heart Disease, Chronic. The characteristic signs of this are heart murmurs varying in type according to the valves affected, pains of varied nature, a rapid and feeble pulse, shortness of breath, with impaired circulation and blueness of the extremities.

Heart Dis-
eases,
Chronic
Valvular

When in a partly recumbent position these symptoms are modified; but, on the slightest exertion they become accentuated, with the result that fainting is likely to occur or apoplexy may follow. As a rule the natural termination of this condition is in heart-failure, though this may occur only after many years, during which the person may live a reasonably active, productive life. The signs which indicate that the end is near are a dropsical condition of the body combined with a congested condition of the lungs.

Treatment. When acutely inflamed, the heart's labors must be lightened. This necessitates both external and internal rest. The patient should be carried to bed in a well ventilated room

and he should remain there until the inflammation has subsided and thereafter until some recuperation has taken place. Complete Fast No. 2 will give the necessary internal rest and should be continued until the inflammation has subsided.

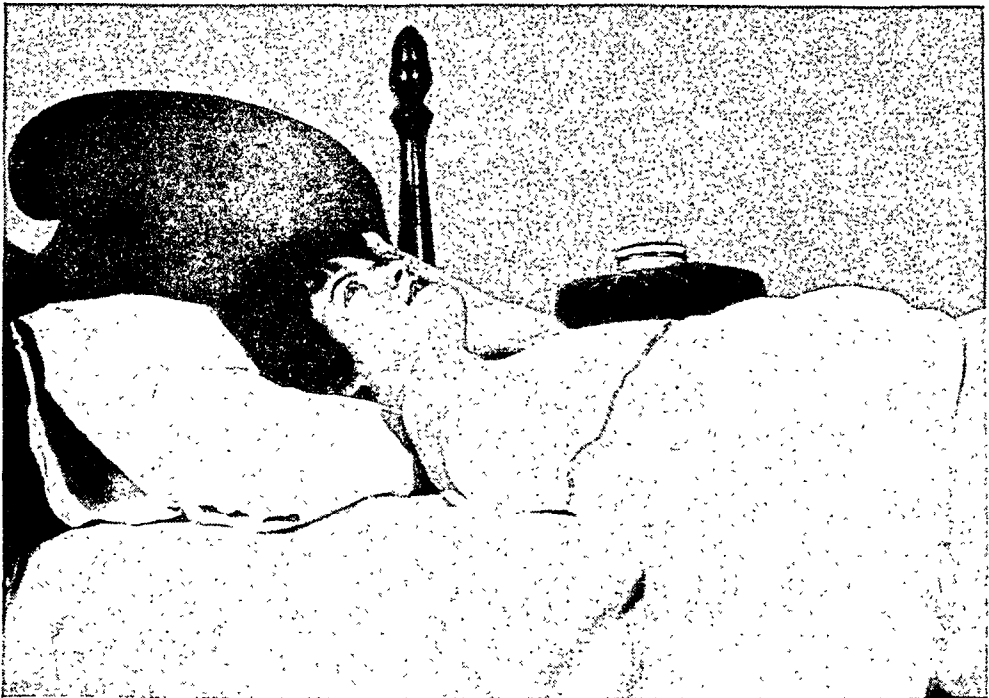
If the patient is weak, a little unsweetened orange, lemon, grape or even grapefruit juice may be allowed, but no other food. Eating, for the supposed purpose of keeping up the strength, only adds to the work of the heart. Enemas, if needed, should be employed daily during the fast, using just enough warm water to obtain a satisfactory movement. Cold compresses, renewed every thirty minutes, should be applied over the heart region for two-hour periods, with an hour's rest between.

**Treatment in
Heart Disease**

If the heart-action is too fast, the cold compresses may be renewed more frequently, or an ice-bag may be applied for short periods over several thicknesses of wet cloth. This treatment should not be continued longer than necessary.

If the heart-action is too slow, it may be necessary to avoid the cold compresses, applying repeated hot compresses instead until the fault has improved. Medicines should be strictly avoided, as they only add to the poisons in the body. The compresses mentioned will give all the stimulation necessary.

After the acute symptoms subside and the heart-action is



Rapid heart-action may respond to the application of an ice-bag over the cardiac region. Ice-bags, ice-caps and other appliances which cause extreme low temperature should be used with caution, to prevent injury through their depressant and anesthetic effects.

normal or nearly so, the fast may be broken; but eating must be resumed very gradually. It is well to take fruit juices for at least one day and the fresh whole fruit for an additional two days, before taking anything more solid, such as vegetables and milk. This latter plan calls for one meal of fresh fruit, one meal of sour milk and sweet fruit and one meal of vegetables and sour milk. As alternate diets sour milk and easily digested neutral vegetables, or, better yet, vegetable broth with fresh, green vegetables may be used. The quantities and varieties should be gradually increased, but it is always necessary to observe care not to take any more than is necessary to maintain weight and strength.

The first exercise taken, except in cases of tuberculosis, should be in the form of deep breathing. As improvement continues, passive exercise given by an assistant may be added. The first active exercise should be in the form of walking. This is to be extremely slight at first and only very gradually increased. Thereafter, follow the same routine for chronic heart disease, giving special attention to the graduated exercise, sun-baths and cool baths.

Natural methods of treating *chronic* heart trouble depend entirely upon the increase of general bodily vigor for securing results.

Chronic
Heart
Trouble,
Treatment

In the treatment of chronic disease the first and most important lesson to learn is that of restricting the food to the amount which the stomach can digest easily and which the body *actually* requires for its upkeep. Where the assimilation is especially good, a limited diet of an extremely abstemious nature is advised. Weigh the patient every day; if he is dropping below the minimum weight he should maintain in order to be in a vigorous condition, add a very small amount to this diet, adding weight-gaining foods chiefly—provided the diet is well-balanced otherwise. If he is going above this weight, decrease the amount of the food used at each meal, especially fats or starches, or both. In this way he may regulate the amount of food he is eating with the same care that he would if feeding his horse, so he will be assured against the dangers of overeating.

Ordinarily a fast should be taken in the beginning of the treatment. Complete Fast No. 2, continued three to ten days, perhaps would be most satisfactory. Following this Partial Fasting Routine No. 10 for three to five days would be satisfactory.

If the bowels are not acting with proper regularity the use of an enema is advised, using water at barely below body temperature. Following this partial fasting routine the Limited Diets listed in Section 6 of Volume VII, including foods of 15 to 20 per cent. carbohydrate content, may be used for a few days,

after which Milk and Fruit Diet No. 3 may be used in accordance with the dictates of the appetite, being careful to use each diet for one day or more at a time.

Salad Diet No. 5 also may be used for a few days, if desired, then Salad Diet No. 6, with not more than one glass of milk or sour milk at a meal until considerable improvement is noted. Recovery often depends chiefly upon limiting the amount of food to the smallest possible quantity essential to the maintenance of life and health.

In the treatment of chronic heart diseases, exercise is as important as diet, since the use of the muscular system is as essential to the strengthening of the heart as to the development of the external muscles of the body, the heart being composed practically entirely of muscle tissue that needs exercise for strengthening. Of course, violent exercise of all kinds must be avoided; but, the various movements necessary in developing the chest may be especially recommended. Special Manual Treatments 11 to 16 are particularly valuable if one is fairly vigorous. Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be used in moderation if one is strong. As strength is gradually gained the exercises may be made more vigorous. These treatments and exercises are discussed at length in Volume VI, Section 3.

Whenever one finds the exercise is taxing the heart or causing the slightest discomfort his efforts, of course, should immediately cease, for a time. But do not for a moment accept the theory that any exercise is dangerous in this complaint. One can be absolutely sure that if no exercise is taken the heart will gradually grow weaker. The symptoms associated with any disease of this organ are bound to increase in severity unless some radical method of adding to the strength of the heart is adopted and followed day after day. Begin moderately and gradually increase the vigor of the exercise.

A valuable form of exercise is hill-climbing. Of course, in the beginning one must select merely a slight grade—often walking on the level for a sufficient time to permit this exercise without the production of unpleasant symptoms. Then select a slightly steeper grade, then one still slightly steeper, and stop and rest frequently. Continue in this manner until fairly steep hills can be climbed without symptoms. Use each grade for a week or ten days before progressing to the next steeper grade and always start on each grade at a very slow speed with frequent rests, increasing the distance very gradually before increasing the rate of speed.

Nearly forty years have elapsed since one patient suffering from

chronic heart disease was treated in these ways. He was emaciated to an extraordinary degree. He had been told that he was likely to drop dead at any moment—that he must not walk fast, run or take any exercise requiring extra exertion. In this case the methods prescribed were directly opposite in nature, though, of course, suggesting that all violent exercise be avoided. This young man improved in a marvelous manner, gained twenty-five pounds and, about eighteen months after he began the treatment, entered a wrestling tournament and defeated every opponent of his weight.

Although diet and exercise may be first in importance, the stimulation of the external tissues and of the circulation through the use of cold water treatments is also of very great importance.

A sufferer from any heart disease should not jump into an ice-cold bath or expose his entire body to a shower bath of a similar temperature. Nevertheless, he should day by day gradually inure the body to the use of cold water, for there is nothing else that will so effectively assist the heart in its work of circulating the blood.

Building Vi-
tality in
Heart Dis-
ease

Cold water hardens and tones up the external tissue, accelerates the circulation, drives the blood inward and onward toward the heart and in this manner naturally lessens the labors required of the heart. The reaction from the cold bath is of even greater value than the immediate effect of the cold, for it brings about better skin circulation, thus relieving the heart in its work of pumping the blood through the myriad skin capillaries.

One may begin this cold bathing treatment by exposing one arm at a time, for instance, to moderately cool water. If he so desires he may go so far as to apply fairly cold water to one arm, after which the arm may be dried. Then he may pass on to the other arm, then to one leg, and so on until all parts of the body in turn have enjoyed the tonic effect of the cold water. It would be well to study thoroughly the subject of *Water and Health*, Vol. VI, Sec 2.

Sufferers from heart trouble should also read *Dietary and Vitality-Building Routines* (Vol. VII, Sec. 6), adapt such as meet their needs and follow them out carefully each day; though if the general suggestions made herein are adhered to it will not be necessary to add much to them. Air-baths and sun-baths are excellent tonics; but any sun-bath should be followed at once with a cold or a cool application.

Exercise, one should remember, is absolutely essential; but a repetition of the warning as to the possibility of overexertion is important. Advance slowly in your muscular efforts. Progress slowly in the use of cold water, also. But if one rigorously follows the methods herewith outlined he can depend upon marked results.

In fact, if his age will permit, he may be able, like many others, to develop the strength of an athlete in his efforts to remedy the symptoms of his disease.

Heartburn

HEARTBURN.—A burning sensation in the region of the esophagus or the same sensation starting in the stomach and rising upward to the throat, often accompanied by the belching of gas. It has nothing to do with the heart, being entirely an abnormality of the stomach, or rather a symptom of such abnormality. It is due to an excessive amount of acid in the stomach, especially when there is excessive stomach fermentation. This in turn is a result of overeating, improper combinations of foods and other dietetic errors. Very often the chief cause is a starch indigestion, or an excess of starch, sugar, fried foods, condiments, tea or coffee. No one suffers from heartburn if he eats correctly. The use of alcohol and tobacco causes this disturbance in many instances.

Heartburn,
Treatment

Treatment. An acute attack of heartburn can be remedied by drinking slowly from a pint to a quart of hot water. There is no necessity for taking soda or medicine. Any alkali will temporarily counteract the acidity of the stomach, but in the end will make it worse. In severe cases it may be well to empty the stomach after drinking the water, by inserting the finger in the throat to induce regurgitation. After this, drink some more hot water, to be retained.

It would be well to skip the next meal, or even the next several meals, in order to give the stomach the proper rest and thereafter to eat more carefully. If one has had repeated attacks, it is well to abstain from food for several days, using Complete Fast No. 2. When eating is resumed, it is essential to avoid in any one meal mixtures of foods that do not combine properly under digestion; for instance, starches with acid fruits or starches with heavy proteins.

Heart-
Failure

HEART-FAILURE.—A sudden reduction in and perhaps temporary cessation of the heart-action. Most cases of heart-failures are only partial, due to disease, injuries, sudden shock or fright. Complete failure, of course, would result in death.

Symptoms. In this condition the symptoms are a sudden failure of the heart to function, the pulse becoming very rapid, then weak and irregular, the contractions of the heart muscle growing more and more feeble. There is an anxious expression on the face of the patient, dyspnea or difficult breathing and often, if the case is very serious, a rattling in the throat, due to the accumulation of the fluid in the lungs (*pulmonary edema*). Often a frothy mucus streaked with blood issues from the mouth and the nostrils. The face is pallid, there is cold and clammy perspiration, the eyes roll and the lips, cheeks, fingers and toes become bluish.

Treatment. Cases of heart-failure may be treated similarly, regardless of the cause, though, of course, after its action has been restored and the patient regains consciousness the necessary measures should be applied to remove the causes of the condition. The patient should be placed in a comfortable reclining position, the clothing loosened and a plentiful supply of fresh air provided. Heat should be applied over the region of the heart, using either a hot compress, a hot-water bottle, an electric pad or friction.

Heart-
Failure,
Treatment

If heat is not conveniently available, stimulation of the spine by concussion of the seventh cervical vertebra may be used effectively. This may be used also in addition to the application of heat. If these measures do not produce desired results, apply heat to the feet and the legs, hands and arms and rub them. Slap the palms of the hands and the soles of the feet. Moving the arms upward and downward, as when applying artificial respiration, may prove of value.

After the patient regains consciousness, have him drink a glass of hot water. Do not be in a hurry to give food. Wait until there is a definite desire for it. About thirty minutes after giving the hot water, apply hot spinal compresses and manipulation, employing Head, Neck, Back and Shoulder Movements (Vol. VI, Sec. 3). Thereafter, institute the general routine required for the removal of the cause of the heart-failure.

HEATSTROKE (*Heat-exhaustion; heat-prostration*).—A morbid condition similar to that of sunstroke (which see). In contradistinction, however, to sunstroke, a heatstroke may result when the sun is obscured from view. It may occur to those working indoors in a close and heated atmosphere. The predisposing causes are similar to those of sunstroke, being of a constitutional nature and in most cases having to do with dietetic errors. The heatstroke, in practically all cases, is made possible only by a lack of vital resistance, a sluggish and impure condition of the bloodstream, defective circulation, imperfect balance between heat development in the body and heat dissipation and a generally unsatisfactory condition of the body as a whole.

Heatstroke

Heatstroke may be distinguished from sunstroke by the difference in temperature and the manner of attack. Sunstroke comes on suddenly, while heatstroke usually comes on gradually, though not always. In sunstroke the surface of the body is hot and flushed, with a bodily temperature of 105 to 108 degrees F. In heatstroke the skin is cool and the temperature often is subnormal.

Symptoms. In addition to the above, other symptoms before the collapse are giddiness and nausea, for a longer or shorter period. At the time of collapse the temperature, as stated above, is normal

or subnormal, the pupils dilated, the skin cold and clammy. Recovery under proper treatment is rapid. There is considerable weakness and sometimes severe headache after the attack. Rarely does heat-prostration terminate fatally; but in cases in which the patient does not recover, coma supervenes before death occurs.

Heatstroke,
Treatment of

Treatment. For the immediate treatment of an attack, see *First Aid in Accidents and Disease* (Vol. VII, Sec. 5). By way of subsequent treatment it is necessary to adopt constitutional measures for building up the general health. The building of increased vitality will enable the victim to avoid future prostrations and will be absolutely necessary to recover properly from the shock and depression of functional and vital powers incident to the attack.

If the attack has been severe, a neutral bath daily for several days and lasting perhaps an hour or somewhat less will be helpful to rest and quiet the nervous system. Special Manual Treatments 1 to 10 may be used for invigorating the nervous system, or perhaps Treatments Nos. 11 to 16, as the patient grows strong enough to take them comfortably. If this spinal treatment is taken in the morning, the neutral bath may be taken with advantage in the afternoon or the evening.

A complete fast of two to four or five days will enable the patient to accelerate his recuperation from the nervous shock. The use of food at this time will only burden the body and hinder recovery. Complete Fast No. 2 is suggested, with Fast-Breaking Routine No. 1, thereafter gradually returning to the use of ordinary foods, if the return of strength is rapid. If the patient does not gain rapidly, however, Milk Diet No. 1 would better follow and be continued until normal strength is regained, or, if under weight, until normal weight is reached. Alcoholic drinks of any kind are positively interdicted and meats and all rich and spiced foods should be avoided, also all sugars except sweet fruits or honey in moderation. Fats and starches likewise should be reduced in quantity. Cool water and fruit juices may be drunk as freely as desired.

A vitality-building routine suited to the strength and condition of the patient should be adopted, especially including short walks, deep breathing exercises, dry friction baths, cool water baths and air-baths. The last will help to restore nervous tone in addition to their other good influences upon the circulation and the processes of elimination. Naturally, also, the activity of the bowels should be attended to (see treatment under *Constipation*, Vol. VII). One should avoid exposure to sunlight for a time, especially midday sunlight.

Hectic Fever

HECTIC FEVER.—This is a form of chronic blood-poisoning that often accompanies wounds that fail to heal. It is marked by

prolonged suppuration, and apparently due to the absorption of small quantities of pus. It is not often developed in a case of chronic abscess that is still unopened, but occurs where wounds and abscesses are opened and improperly treated.

Symptoms. These include fever, with profuse perspiration, especially at night, wasting, and usually diarrhea. The cheeks are flushed; the eyes are bright, with pupils dilated; the tongue is red and the pulse is rapid and weak. There are loss of appetite and progressive weakness and exhaustion with ultimate death.

The afternoon rise of temperature during tuberculosis also is termed hectic fever.

Treatment. Except in case of tuberculosis a diet of nothing but orange juice and water, taking six or eight oranges a day, should be adhered to for five to seven days, depending upon the weight and strength of the patient. At least one glass of water an hour should be taken, either hot or cold as desired. Cool enemas should be taken if the bowels are constipated. Rest is advisable, and plenty of fresh air is important. Sometime during the day a cold wet-sheet pack may be administered in order to produce free perspiration. This may be repeated every other day. If the patient's reactive powers are poor, however, it would be well to use a hot-blanket pack after there has been some improvement. The packs may be limited to the abdomen only. The patient should have a tepid sponge bath every morning, especially if he has perspired much during the night. Local or general ultra-violet irradiations by means of a quartz (mercury-arc) or a carbon-arc lamp often will be of assistance.

Hectic Fever,
Treatment

After the orange diet, Milk Diet No. 3 should be used, limiting the quantity to three quarts a day for several days and four quarts a day for the balance of the first week. Thereafter, the amount may gradually be increased to five or six quarts. This diet should be adhered to until there has been full recuperation, though if the fever shows any tendency to return it would be well to devote an additional day or two to the orange juice diet. A daily abdominal pack should be used for a week or ten days after starting the milk. Later proceed as in convalescence from any acute disease. After some weight has been gained, exercise may be resumed gradually, employing a vitality-building routine suited to the strength of the patient.

HEIGHT, INCREASING THE.—Normal height for a certain age cannot be accurately determined. Races vary in their average height and so do families. Heredity and environment play important parts in determining an individual's height. Except in extreme cases where the height is obviously abnormal as in gigantism and dwarfism (conditions due to abnormal functioning of

the endocrine glands), one's height may be considered normal for his particular type and environment, no matter what that height may be. However, short people would usually like to be taller, and in many cases they may be able to add an inch through persistent training before the bones have completely matured and set.

Greatest results will be obtained, of course, if treatment is begun before maturity. If parents wish their children to be tall they should feed them on foods containing an abundance of mineral elements and vitamins and see to it that they secure plenty of sunlight, outdoor exercise and sleep. Children of pioneer parents are usually taller than might be expected from their heredity because they obtain these benefits, especially food grown on soil which has not been depleted of its minerals.

Those who wish to increase their height should give special attention to these factors and to spinal stretching exercises, such as the following: Suspend the body for short periods by the neck, using two straps or towels, passing one under the chin and the other under the occiput; from standing position, bend forward and touch the palms to the floor; with one foot placed on a table, bend forward and touch the forehead to that knee, repeating with the other leg; in reclining position with knees drawn up and arms clasped around them, roll backward and forward. Proper carriage is important. Stretching machines may be employed if desired, though always in moderation. (See *Traction*, under *Miscellaneous Treatments and Health Factors*, Vol. VI, Sec. 7.)

Helminthiasis

HELMINTHIASIS.—The presence of intestinal parasites or worms. See *Intestinal Worms*.

Hematemesis

HEMATEMESIS (Hemorrhage from the stomach).—Vomiting of blood. The quantity of blood expelled may vary from a teaspoonful to a small basinful and may be either bright or dark red. The blood also may be mixed with mucus and food vomited.

Hematemesis is a symptom which accompanies, in many cases, ulcer or cancer of the stomach. It is to be regarded as a sign of some portent. It occurs occasionally, also, in certain specific fevers, such as yellow fever, smallpox, malignant scarlet fever, some liver diseases and sometimes in severe anemias and other blood diseases.

Treatment. But little, excepting absolute quiet, can be accomplished by way of treatment. Shortly after, a small glass of cold water in which a quarter of a teaspoonful of salt has been dissolved might be used to advantage. A cold abdominal pack also is of value in some instances.

In case of apparently severe hemorrhage, complete rest in bed will be necessary, lying flat on the back. In this case cold wet cloths or ice-bags may be applied over the stomach continually,

placing two or three thicknesses of wet towel underneath to protect the skin from too much chilling. Gastric lavage with cold water is of benefit, though rarely conveniences for such are at hand. Pressure by a roll of cotton or other material across the abdomen may be used to advantage. Avoid undue pressure.

Hematemesis, Treatment

In a severe hemorrhage of this kind Complete Fast No. 1 should be adhered to for several days. In a less serious case, however, a partial fasting routine or a limited diet may be adopted for a considerable time thereafter.

Following any attack of this kind great care must be observed to avoid dietetic errors. Even in mild attacks it usually is best to fast for three to ten days, although some acid fruit juice might be allowed after the first few days if the patient has a craving for it.

One of the limited diets ranging from Nos. 1 to 8 may be selected and adhered to with advantage, as the patient gains in strength and digestive power. In most instances, however, Milk Diet No. 2, or milk with a few drops of lemon juice to each glass, would be best after the fast to bring about rapid results. Special Manual Treatments 1 to 10 may be used with benefit as the patient begins to recover. Back and Shoulder Movements 1 to 11 (Vol. VI, Sec. 3.) also would be valuable in many cases, though remember not to give too much treatment during one day.

Since hemorrhage from the stomach is a symptom of many other diseases, the important treatment in these cases must be directed toward the underlying disease, though the hemorrhages must be relieved immediately according to methods indicated above; but after that proceed with the treatment described in connection with the main disorder. (See *Stomach, Diseases of*.)

HEMATOCELE.—This is a swelling caused by an effusion of blood into the sac of the *Tunica vaginalis*, in the spermatic cord, a testicle or the pelvis and is due to accidental injury or other cause. Blows, wounds, or violent straining may produce it. It must be distinguished from hydrocele, which is a collection of watery serum. This distinction can be made from the fact that the swelling of hematocele is opaque when a light is held behind it, and not translucent as is the swelling caused by hydrocele. (See *Hydrocele*.)

Hematocele

Treatment of hematocele consists of complete rest and quiet, with the elevation of the scrotum and the application of cold compresses. If the condition becomes serious, the patient should assume a reclining position with the hips raised. The scrotum may be strapped lightly with adhesive tape. Fasting for a time and the drinking of only a little water are recommended. The surgeons may cut into the sac of fluid, evert the walls outwards, and thus prevent accumulation of more fluid. It is not a dangerous operation, though skill and care are needed in performing it.

Hematocele, Treatment

HEMATURIA.—The passage of blood in the urine. The blood may come from kidneys, bladder or urethra. Often it is present when any of these organs is in an inflammatory condition. It also is likely to appear in cases of stone or calculus of bladder or kidney and likewise when these organs are tubercular or cancerous. It also is found sometimes in tumors of kidneys, bladder or prostate gland and in some general diseases, such as malignant fevers, malaria, purpura, scurvy, syphilis, leucemia, hemophilia, etc., and may result from injury.

Hematuria,
Treatment

Treatment. If the bleeding is not so severe as to produce great weakness it should not be interfered with. It usually will cease spontaneously. The loss of blood in this way is sometimes of advantage as serving some definite purpose. Where, however, it is clearly indicated that the loss is lessening the vitality of the patient, a cold sitz-bath or a cold hip and abdominal pack usually will be effective in stopping the hemorrhage. Sometimes both should be used, the sitz-bath first for ten to twenty minutes if not too cold, followed by the hip and abdominal pack while lying on the back. A cold douche to the soles of the feet, or a cold towel slapping the soles, often will prove of value in checking the hemorrhage. In a serious case it would be well to elevate the hips a few inches while reclining.

Gelatin, which improves the coagulability of the blood, may be used in cup feedings two or three times daily, but preferably thin and fluid rather than jellied. The appearance of symptoms of this character, as already mentioned, indicates the presence of some other ailment, so this particular disease, whatever its nature, must be carefully treated, realizing that it probably is serious.

HEMERALOPIA.—See *Sight, Disturbances of*.

HEMIANOPSIA.—Blindness in half of the field of vision. See *Sight, Disturbances of*.

HEMIPLEGIA.—One-sided paralysis. See *Paralysis*.

HEMOPERICARDIUM.—Hemorrhage into the pericardial cavity or envelope containing the heart. This is a condition that requires expert medical attention.

Hemophilia

HEMOPHILIA.—A condition characterized by a tendency to bleed excessively on the slightest provocation, so that even a slight wound, when neglected, might end in death through loss of blood. This characteristic usually is found in children and in members of the same family. It is an interesting fact that the disease is transmitted through the female members of a family to their male offspring, although females themselves rarely are affected. Generally it abates in later life. In certain cases the tendency may be so marked that even a pin prick or brushing of the teeth may cause hemorrhage to such a degree that its control becomes difficult.

There seem to be two factors that contribute to this condition: First the failure of the blood properly to coagulate, due to an abnormality in the fibrin element, and second, extreme thinness of the walls of the blood-vessels. The condition may be due to some abnormal condition of the blood, which, though inherited, often may be cured by constitutional measures.

The hemorrhages may occur externally, as from a cut surface, nosebleed, tooth extraction, etc., or internally in the form of blood tumors under the skin from even very slight injuries. Bleeding into joints is very common, especially into the knee-joint.

Treatment. This condition sometimes can be remedied by adherence to Complete Fast No. 2 for a few days. Many may declare that where the blood apparently is depleted and there are definite indications of the want of nourishment, a fast is likely to bring about seriously unpleasant results. One may rest assured, however, that no serious results will follow a short fast.

Hemophilia,
Treatment

Follow Complete Fast No. 2 for two to ten days, depending upon the strength of the patient. If at any time the patient should grow so weak he cannot walk around, it would be advisable to break the fast. After it has continued for a short time two or three oranges or a half-pint or pint of grape-juice may be used daily until time to break the fast. Where there is any doubt as to the length of the fast it probably would be better not to continue it after five days, whereupon Fast-Breaking Routine No. 1 may be used. In the case of children it often will be well to use Partial Fasting routine No. 1, 2 or 4 from the start.

Exclusive Milk Diet No. 2 is especially valuable in this disease and should be adhered to until considerable weight is gained and the vitality appears to be safely established. Naturally, children will need the quantity of milk reduced somewhat to conform to their capacity.

Special Manual Treatments 11 to 16 taken daily would be of value in a case of this kind. If the patient does not possess sufficient strength to take this particular treatment, a hot spinal pack in the morning and a hot abdominal pack in the afternoon should be helpful. While adhering to the milk diet all other water treatments should be avoided, except that a neutral bath at 98 or 100 degrees may be taken for one-half to three-quarters of an hour each day.

When a satisfactory gain in weight and strength is established, Combination Milk Diet No. 19 may be used for a few days, after which the patient may gradually resume ordinary foods. Thereafter, however, the greatest possible care must be observed to avoid overeating. A vitality-building program adapted to the strength of the patient should be adhered to. Fluid gelatin may be used to advantage in this condition.

Hemophilia,
Diet in

With the gain of strength, Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be used, later adding Hip and Spinal Manipulations 27 to 32. (Vol. VI, Sec. 3.)

Everything that tends to build up will be of value in this disease, so an outdoor life is to be insisted upon. It might be well not to send children to school until they have overcome or outgrown this complaint, unless it is possible reasonably to insure against their becoming injured. However, some children may not outgrow it. So far as the school work itself is concerned there is no contraindication to it.

Air-baths, sun-baths and friction baths are of great value, together with sports and games of a health-building nature. Violent exercise and exciting factors should be avoided. Often scientific studies and accurate measurements of the chemical ingredients of the blood will be necessary.

Hemoptysis

HEMOPTYSIS.—Bleeding from the lungs or the bronchial tubes. Blood coughed from the lungs may be distinguished from blood vomited by the fact that the latter is dark red and lumpy, whereas blood from the respiratory organs is bright red and frothy. This coughing of blood may arise from various causes. All diseases of the respiratory tract may cause the raising of blood at times, while the quantity expectorated may vary from specks or streaks in the sputum to a considerable amount in the case of hemorrhage.

The most frequent cause of the expectoration of blood is pulmonary tuberculosis, though this symptom by no means necessarily indicates this disease. In the early stages of tuberculosis, if hemoptysis occurs at all, it is likely to be very slight; but if occurring in the later stages of the disease it may be severe or even fatal.

Blood-spitting sometimes occurs in pneumonia, in certain conditions present in some forms of heart disease, in aneurism of the aorta, in ulceration of the larynx or of the windpipe, and in some conditions of the throat and post-nasal spaces. In addition to a disease condition, it is possible that unusual strain in coughing, blowing the nose too hard, or other conditions causing undue blood pressure or air pressure in the lungs, may give rise to hemorrhage or bleeding.

Hemoptysis,
Treatment

Treatment. Hemorrhage of the lungs is a serious matter, so requires careful treatment. Spitting of blood in small quantities, however, need not alarm the patient. As this disorder most commonly arises from disease of the lungs, the treatment naturally will be principally that which deals with such disease. Special treatment should be adopted for immediate relief in all cases. Cold chest and shoulder packs renewed frequently will be effective, while the drinking of cold water at intervals is recommended.

Small pieces of ice may be sucked or even swallowed with good effect. Strenuous exercise and forced deep breathing should be avoided.

If the bleeding is alarming in quantity the patient should sit in a reclining chair and have frequently renewed applications of cold packs to the upper spine and hot applications to the feet.

The constitutional treatment is most important in all cases. When the hemorrhage is associated with some disease, the treatment should follow the lines appropriate for that disease. If the trouble is due to a run-down condition, not complicated with a specific malady, then a general routine should be adopted for purifying the blood and building up vitality. A brief fast followed by a limited diet will be effective if one is of normal weight; or followed by Milk Diet No. 2 if below normal weight. In the former case one may choose from Limited Diets Nos. 1 to 8. Alcohol and all other stimulants are positively forbidden in every case.

HEMORRHAGE.—A term applied to profuse bleeding or loss of blood from the blood-vessels. Hemorrhage may be either internal or external and may be due either to internal disease or internal or external injury. The blood may come from an artery, a vein, capillaries, or from all of these vessels. Hemorrhage from a cut vein comes in a steady stream, the blood being dark crimson in color, while that from a cut artery is bright scarlet and comes in spurts, corresponding to the heartbeats. Hemorrhage

In addition to the loss of blood, the symptoms of hemorrhage of severe degree are general weakness, restlessness, air-hunger, coldness of the surface of the body, acute anemia, collapse and perhaps death.

Treatment. The copious discharge of blood which occasionally accompanies internal disease allows of practically little or no local relief, so ameliorative measures may be found only in constitutional treatment. But an external hemorrhage due to accident, such as a severe cut, can be readily controlled. Hemorrhage, Treatment

In attempting to check an external flow of blood remember that the blood current is flowing back to the heart in the veins, whereas in the arteries it is coming away from the heart. Therefore, after first determining whether the bleeding comes from a vein or an artery, compression must be made accordingly. This compression may be by thumb or finger, though it may be made more uniform by rubber bands or a tourniquet. (See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

If an artery is severed the bandage must be applied on that side of the wound nearest the heart; if, on the other hand, a vein is lacerated the flow of blood must be obstructed on the side of the wound away from the heart. In treating cut arteries, liga-

tion or tying often is necessary, as an artery does not collapse. On account of its construction and on account of the force behind the flow, clotting is more difficult than with venous blood.

For detailed suggestions as to external hemorrhages see *Wounds*, under *First Aid in Accidents and Disease* (Vol. VII, Sec. 5).

Hemorrhage from the Lungs. See *Hemoptysis*, and *Tuberculosis*.

Hemor-
rhage, In-
ternal

If there is evidence of *internal hemorrhage* in any part of the body, good emergency treatment in some cases is the application of pressure, by the hands or in any other way. This, however, cannot be continued very long. The application of cold, preferably of ice or ice-bags, often will be effective. If cold and pressure can be accomplished at the same time by means of a piece of ice with a towel rolled around it, so much the better. In a vital or a tender part only cold should be used, without pressure. Absolute quiet is important and the part of the body affected should be raised as high as possible. If on one side, for instance, the patient should lie on the other side. In some cases an immediate surgical operation might be necessary to check an internal hemorrhage.

The constitutional treatment in all cases of this kind is highly important. For the first two or three days Complete Fast No. 1 would be advantageous, after which Complete Fast No. 2 or 3 is to be preferred, and should be adopted for two or three days more. Fast-Breaking Routine No. 1 should be used. If there is any further danger probably the exclusive milk diet taken in bed would be the most suitable dietetic routine to follow; otherwise, choice may be made from Limited Diets Nos. 1 to 8 for two or three days, but always following one limited diet for at least one day at a time. After that gradually adopt the use of ordinary foods. After two or three days, the application of hot packs to the part of the body affected will be of advantage. For treatment of external hemorrhages over the surface of the body, see *Contusions*, *First Aid in Accidents and Disease* (Vol. VII, Sec. 5).

Hemor-
rhage,
Uterine

Uterine hemorrhage (Metrorrhagia) should be treated with cold wet hip and abdominal packs, the patient lying on her back, with hips elevated some inches above the level of the head. In a severe case, absolute quiet will be necessary. In such cases ice-bags may be applied over two or three thicknesses of a wet towel. Very hot vaginal irrigations; a hot foot-bath followed by a cold compress to the lower abdomen and the inner thigh surfaces; or non-absorbent cotton tampons packed well against the cervix may be used with success.

In stubborn cases the very cold shallow sitz-bath for ten or fifteen minutes with a hot foot-bath, or a cold vaginal irrigation, may be necessary. Fasting also is indicated until all immediate danger from further hemorrhage is passed. Fluid gelatin given in

cup doses one, two or three times a day helps to increase the blood coagulability and thus aids in checking hemorrhage. Surgical intervention often is necessary. (See also *Uterus, Diseases of*.)

HEMORRHOIDS (*Piles*).—Hemorrhoids are exceedingly common and troublesome. They consist of small tumors which appear at the edge of or just within the anus and cause intense pain when evacuation takes place. These tumors usually are composed of swollen and inflamed veins, often containing blood clots. They are of two varieties, external and internal. The external variety may be seen at the margin of the anus as small, hard, rounded purplish masses. The internal variety may or may not protrude through the anus.

Hemor-
rhoids

Though hemorrhoids usually are regarded by certain members of the medical profession as a purely local disturbance, this opinion is disproved by the fact that constitutional measures, without local measures, usually bring quick relief and, in time, their obliteration; whereas local palliatives generally prove more or less unavailing, except temporarily.

Constipation of a chronic nature is a predisposing cause of piles. Among other causes are lowered tone of all tissues or of muscles, obesity, straining at stool or in lifting, long standing on the feet, liver congestion, enlarged prostate, heavy uterus and cystitis.

Symptoms. Piles generally are slow in developing and may be present some time before they are detected. The symptoms which attend their formation are pain at stool, slight bleeding when the trouble is internal and a feeling of soreness and irritation after the passage of the feces. There often is a persisting soreness or feeling of weight in the region of the rectum, sometimes with a feeling of desire to evacuate after complete emptying of the rectum. Constipation is likely to be present, because the sufferer from piles dreads bowel movements on account of the suffering following an evacuation, as well as because it usually existed as one of the principal causes of the hemorrhoids.

Hemor-
rhoids,
Symptoms

External piles frequently cause intense itching. Piles of this character often can be readily cured by the treatment here described. When neglected, the piles increase in number, inflammation of the mucous membrane of the rectum may follow, the pain is intensified and bleeding becomes more profuse. The swellings, which at first are the size of a pea, may reach the size of a plum. More or less continuous bleeding may then set in.

Hemor-
rhoids,
External

The chief symptoms of *internal piles* are bleeding, protrusion of a tumor mass during defecation, a sense of fullness in the rectum, with or without a mucous discharge. The bleeding occurs during or following stool; if severe, anemia may result from excessive or repeated bleeding. Tenesmus of the rectal sphincters is common.

Treatment. In order to secure prompt and effective results, treatment should be both constitutional and local. Constitutional treatment alone in many cases will bring about satisfactory results. Fasting, for instance, is an exceedingly valuable remedy for this disease. The tendency of this routine is to allay inflammation of all kinds. It seems to be especially effective in connection with this malady. Therefore, Complete Fast No. 2 is advised, to be followed for five to twenty days, depending upon the strength of the patient. As a rule the longer the fast is continued the more pronounced will be the result.

The Fast-Breaking Routine adapted to the length of the fast may be used. Note, however, that the milk diet, unless a great degree of care is used, is inclined greatly to aggravate the symptoms for the first few days; yet such diet will bring about far more speedy results in this ailment than most other dietetic routines. The full quantity of milk should be taken, in some cases as much as seven quarts daily.

Also to be advised is the injection into the rectum of two or three ounces of olive oil every night before retiring, especially while one is continuing the milk diet. This, however, should not be injected until immediately before retiring, for if otherwise it may not be retained.

Where the occupation is of such nature that one cannot follow the milk diet, an uncooked diet, of which cereals form an important part, is specially recommended. For instance, Cereal Diets Nos. 1, 2, 3 would be valuable in some cases of this disorder. Any of the Salad Diets also would be even more beneficial in most cases, especially No. 5 or 6.

A cold sitz-bath taken every day upon arising and retiring will be of value in many cases, though one must recuperate with a feeling of warmth after this bath, for if the body feels chilly after it the bath should be shortened or avoided altogether. The very hot shallow or full sitz-bath or the alternate hot and cold sitz sometimes is more helpful than the cold sitz alone. About one-half pint or a pint of cold water or three to four ounces of witch hazel injected into the rectum and retained, once or twice daily, is of value.

Oil and water enemas may be used until the feces soften, which they usually do in a few days, particularly if a large quantity of milk is taken. If difficulty is experienced in taking a large quantity of milk, use a milk and fruit diet.

The use of a rectal attachment of an electric vibrator once or twice daily is often sufficient without other treatment to cure an ordinary attack of this complaint. Rectal dilation is also excellent in hemorrhoids, so may be used daily or three times a week for twenty to forty minutes at a time, using the largest size dilator

that can be used comfortably. Forcible dilation of the rectal sphincters is excellent, especially in internal piles, which often give little trouble for months after such treatment. Reduction of contractures along the lumbar spine, percussion of this region and the sacrum, the knee-chest position, exercises in the inclined (head-down) position, hot-water bag or hot compresses locally, are among very worthwhile procedures. Any one or several of these may be employed in any case where the suggestions given above fail or are unduly slow in getting results.

A vitality-building routine adapted to the patient's needs day by day would be of help in adding to the bodily vigor.

HEMOTHORAX.—Accumulation of blood in the chest or lung cavity. Treat same as *Hemorrhage of Lungs*. (See under *Hemorrhage*.) Hemothorax

HEPATITIS.—Inflammation of the Liver. See *Liver, Diseases of*.

HERMAPHRODITISM.—This condition is not in reality a disease, but a deformity, the result of an imperfect formation of certain of the male or the female organs before birth. There is a widespread belief that there are certain individuals who are both male and female in their sexual construction. The name for these supposed individuals in colloquial language is "morphodites." But such a condition rarely exists, these cases usually being due to a deformity or a lack of development of the genitals. There have been cases reported in which there existed a rudimentary ovary and a rudimentary testicle in the same individual, but these are extremely rare. Of course, in these cases the ovary and the testicle, being rudimentary, cannot function. Hermaphroditism

The hermaphrodite usually is of the male sex, though sometimes female; and the deformity, as a rule, is either a cleft in the scrotum giving the appearance of a female vulva, or a hypospadias or an epispadias, or even merely a lack of development.

Up to the tenth week of embryonic life, during the early part of the formative period of an infant, there is practically no distinction in the formation of what are later to become the sexual organs. There is a projecting eminence called the genital tubercle, two so-called genital folds and two so-called genital swellings at the sides. These are the beginnings of the genital organs, the genital tubercle becoming the clitoris in the female or the penis in the male, while the genital folds and the genital swellings become the lesser and the greater lips of the vulva in the female or the prepuce and the sac of the scrotum in the male. Arrested development will leave any of these embryonic structures in a condition which, to a certain extent, may resemble both sexes, or may make it rather difficult to determine which is the true sex of the individual.

This condition of hermaphroditism, then, is purely a case of arrested development. An individual of this description usually is defective in reproductive function and is incapable of having or producing offspring. A hermaphrodite of the male type may seem effeminate, with a childish or feminine voice, deficient beard, etc. But it is not because he is half woman, as often is supposed—merely because he is not strongly developed and because he is lacking in virility. The cause of this prenatal lack of development is not known, though it is supposed that it may be due to the abuse of alcohol or drugs on the part of one or both parents, or to chronic lead-poisoning, or to some condition which has a marked interference with nutrition and normal metabolism of one or the other parent. Hermaphroditism naturally is incurable, though some of the conditions can be repaired by surgical means.

HERNIA.—See *Rupture*.

Herpes

HERPES.—A skin eruption which appears in the form of one or more blisters on various parts of the body. The most common variety develops on the lip and appears in the course of some infectious disease. (See *Fever Blister*.) It often appears along the course of a single nerve and is then complicated with symptoms of neuralgia. This latter quite common variety, *Herpes zoster*, is described under its common name, *Shingles*. Herpes generally appears during the earlier years of life. Its cause is usually intestinal or digestive troubles.

Herpes,
Forms

Another form of herpes is that known as *ringworm*. This is an infectious form of the disease and presents a characteristic appearance. In the ordinary case it begins with the appearance of one to several small and reddish spots on the skin. These sometimes are of pinhead size. They soon become scaly and spread out in a circular or ring-like manner until, after several days, they may attain the size of a five-cent piece or even a quarter of a dollar. As the edges extend the central part clears up. Then the ring-like formation is easily seen. Often there are several of these patches but ordinarily the number is from one to three.

Herpes of the Genitals. This is an eruption similar to that of shingles, which occurs upon or about the prepuce. It usually is produced by irritation secretions and disappears readily upon cleansing the parts and keeping them clean. It is of great importance to keep these parts clean and to clear up the conditions as the same secretions which irritate and cause the herpes may contain the bacteria of venereal disease. In this case the latter disease is almost sure to appear later.

Herpes,
Treatment

Treatment. This disease indicates a defective condition of the blood, often on a neurotic basis. Therefore as a means of treatment Complete Fast No. 3 is recommended, for five to fifteen days, depend-

ing upon the vitality and the weight of the patient. Use Fast-Breaking Routine No. 1 or 2 as indicated by the length of the fast. Milk Diet No. 2 would be of special value by flushing the body with nourishment. Where the milk diet cannot be followed, any diet which provides ample nutrition without excess and which provides an abundance of the mineral elements and vitamins should bring about satisfactory results. Milk and Fruit Diets, such as No. 1 and 3, should be recommended where the exclusive milk diet is impossible.

The application of cold wet packs to the affected parts often is of value. Local heating packs applied at night and allowed to remain until morning are to be recommended in many cases. Steam baths sometimes are of considerable value, especially where associated with the exclusive milk diet. Long walks also are highly beneficial wherever the strength of the patient is sufficient for them.

Air-baths are of great value in a case of this kind. All of the channels of elimination should be kept open and active. In the case of ringworm especially sun-baths are very beneficial. Intensive local applications with a deep-therapy radiant light and heat lamp will relieve the pain and should be followed by general light or ultra-violet irradiation for fifteen minutes or more, at twelve to fifteen inches from the body. Any tendency to constipation should be corrected, and a general vitality-building routine suited to the patient's condition and strength adopted.

HICCOUGH OR HICCUP (*Singultus*).—A sudden sharp inspiration with characteristic sound accompanied by spasm of the diaphragm and the glottis. It is a symptom rather than a disease and is due to irritation of the nerves controlling the diaphragm and the glottis. This irritation most frequently results from digestive disturbances, especially those following overeating, eating or drinking too rapidly and the use of improper combinations of food. However, it may also result from general nervousness, uremia, or peritonitis. Generally the hiccupping lasts only a short time, but occasionally it may be prolonged and severe. Being only a symptom, it is treated symptomatically; but the patient should not fail to give attention to its cause.

Hiccough
or Hiccup

Treatment. If hiccupping does not disappear spontaneously within a short time various measures may be tried, any one or two of which will give relief in nearly every instance. Among these are slow, deep breathing or sometimes rapid, 40 or 50 times, or holding the breath, rapid swallowing, forcible traction on the tongue, tickling the pharynx, eating cracked ice, gargling with ice-water, inhibition of the phrenic nerve by pressure in the region of the third, fourth and fifth cervical vertebræ, or the application of hot compresses to this region and over the diaphragm, compression

Hiccough
or Hiccup,
Treatment

of the external ear canals with the head thrown back, raising the hyoid bone with the fingers; clenching the fists or squeezing upon the interlaced fingers, provoking sneezing, *firm* depression of the tongue with a spoon handle, hanging with arms extended (from suitable beam) and abdominal muscles tense, pressing a forefinger into the middle of the side of the neck while pressing with the long finger where the neck and the shoulder meet (on both sides at the same time).

Pressure over the diaphragm is especially efficacious. The pressure may be applied with the closed fist, or, if this is not effective, a belt or a rope may be passed around the waist and gradually tightened until the spasm of the diaphragm is stopped. Any suitable soft cushion may be placed under the belt for procuring better pressure in the case of a thin individual.

If the trouble is known to be due to too much food or excessive fermentation in the stomach, it may be well to empty that organ by inducing vomiting. Slowly drinking ten to twenty swallows of hot water usually will be effective, especially if taken while pinching the nose. In a prolonged case the patient should momentarily relax as much as possible and try to get his mind off his trouble. But it is unlikely that any case will be prolonged if treated as here directed. After the attack attention should be given to the cause of the condition, so as to prevent return.

HIP-JOINT, CONGENITAL MALFORMATION OF.—A dislocated condition of the hip-joint in which the head of the thigh-bone appears *outside* of, instead of *in* its socket. The protuberance made by the thigh-bone prominence may be either in front or to the side of the pelvis. This is a defect resulting from incomplete development of the socket and appears more often in girls than in boys. When the displacement is on one side only, one leg becomes shorter than the other, with the result that the walk is characterized by a limp. But should both limbs be affected progression is marked by a clumsy waddling, similar to the toddle of a duck. Naturally, the sufferer is unable to walk far and soon becomes tired.

Treatment. As a rule this deformity is more or less amenable to manipulative treatment, so a skilled operator, using constitutional measures at the same time, may accomplish much.

Outside of what can be done in the way of adding to one's general vitality, there is little to be accomplished by a home treatment for this disease. Only one who is skilled in manipulative treatment should attempt to remedy a malformation of this nature. What can be accomplished even by such means can be determined only after a careful examination. In many instances, especially when the malformation is treated very early in life, there is a possibility of a permanent cure. This disorder, however, in its very nature involves

Hip-Joint,
Congenital
Malforma-
tion

Hip-Joint,
Congeni-
tal Mal-
formation,
Treatment

such a radical defect of the hip-joint that one cannot expect anything like a complete return of the joint to the normal state, in a great majority of cases.

The means to be adopted for the building of increased vitality in such cases should be very similar to that which should be used for the cure of any disease that depends largely upon constitutional treatment—though naturally many of the exercises that ordinarily would be recommended could not be taken. However, nearly all the exercises for the upper part of the body may be used, while the development of the muscles of the abdominal and chest regions, together with those of arms, shoulders and back, will be of material value in adding to the vital vigor so important in assisting to remedy this and other disorders.

HIP-DISEASE.—A stubborn disease of the hip-joint which generally is considered tuberculous in origin, though it is not uncommon as an after-effect of an infectious disease, such as typhoid or scarlet fever. Although this disease may develop at any age up to puberty and sometimes even in middle life or old age, it is especially likely to develop between the ages of three and seven years. It generally originates in the bones of the hip-joint, either the head of the femur or thigh bone, or in the bony socket into which this bone fits. Occasionally it is said to develop in the synovial membrane of the joint. This deformity is due to the thigh being drawn up or flexed and the knee being turned outward to some extent, this being the position in which the least pain is felt. There also is wasting of the muscles about the hip-joint. Hip-Disease

Symptoms. The malady begins with pain in the hip and the knee and difficulty in walking, then the hip-joint becomes stiff and at times almost immovable, making one leg appear shorter than the other.

When tuberculous symptoms are present and the inflammation spreads, the surrounding organs may become infected and a serious issue follow. Although, even in advanced cases, constitutional measures give relief, some permanent lameness generally follows.

Treatment. This complaint is distinctly of a constitutional nature. The method of treatment, therefore, which must be adopted is that which appertains to the building of increased vital vigor throughout the body. Hip-Disease,
Treatment

Naturally, the constitutional treatment that can be recommended in each case will depend entirely on the vitality of the patient. As a rule the sufferer from this complaint is considerably below normal weight, so fasting must be used with discretion. In such cases Complete Fast No. 2 to be followed for three to five days, and Fast-Breaking Routine No. 1 to follow thereafter are recommended.

In cases where the weight is above normal the fast may be continued for ten days to two weeks. The milk diet is especially advocated because of its power to add vigor to the assimilative organs. While the milk diet is being followed a great deal of exercise is not advised. The only exception to this rule should be the exercises named in the general vitality-building routines adapted to the strength of the patient. Such exercise should be taken in the morning before beginning the milk diet, and continued until the patient feels slightly fatigued. But little exercise will be needed for the rest of the day.

If the patient finds it impossible to follow an exclusive milk diet on account of his environment or occupation, the Milk and Fruit Diet No. 1 or 3 could be taken in accordance with the dictates of the appetite. The diet may be changed from day to day as the appetite might require. As a rule, the food which tastes the best, provided it is wholesome in character, is the most needed by the body. Cod-liver oil should be taken regularly.

Bed rest is necessary in all cases and is especially required in case both hips are affected. Traction or extension also is important in most cases.

Hip-Disease,
Manipulations for

If the patient is fairly strong, Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be used to advantage morning and evening, but if not so strong Special Manual Treatments 11 to 16 may be recommended. Sun- and air-baths are especially valuable in the treatment of this disease, so are advised whenever the temperature and the weather will permit. The open-air life is important if best results are to be secured. It may be added that all natural methods for increasing the general vitality, viz., exercise, diet, bathing, etc., are emphatically advised in this connection. Sea baths are excellent and should be taken when possible.

Walking, provided that it does not cause pain, is excellent. Even where such pain appears, but does not take the form of sharp, definite twinges, it is better to ignore it. In other words, where the pain is little more than a feeling of discomfort, be persistent, but do not overdo either treatment or exercise. Crutches may be necessary for a time. By all means, take every advantage of the healing effect of sun-baths or artificial substitutes.

Hives

HIVES (*Urticaria*; *Nettle-Rash*).—Hives is the popular term for a papular eruption accompanied by intense itching. Although the word hives is a colloquial term somewhat loosely applied it actually applies, correctly speaking, only to urticaria. This affection is due to intestinal irritation (sometimes stomach irritation) arising either from food or from drugs.

The eruption usually is brought on by injudicious diet or by

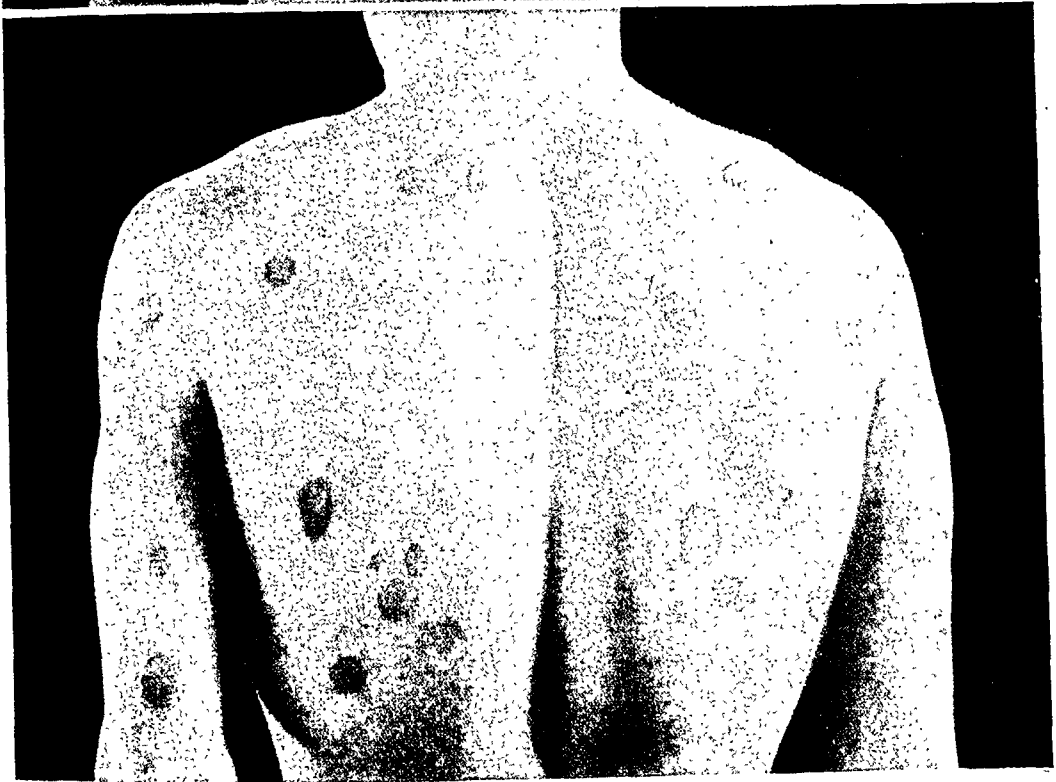
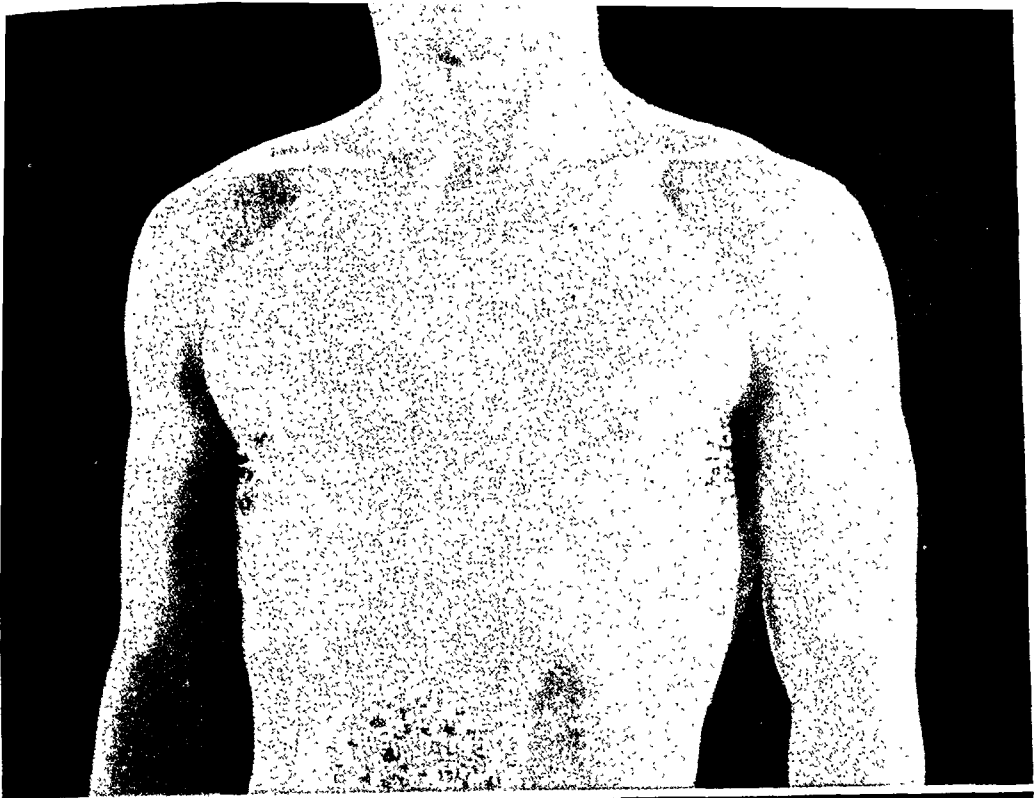


PLATE 102. Skin condition in scabies or itch, is shown in upper figure. Hives, or urticaria, is shown in the lower one.

some article of food toward which one has a special idiosyncrasy. It is said to be produced sometimes by external irritants and bites. Also it is found in some constitutional conditions, especially in conditions in which there is an excess of sugar in the blood.

The foods which most often cause urticaria are crabs, lobsters, mussels, shrimps, clams, oysters, caviar, salted fish, cheese, butter-milk, sausage, pork, veal, strawberries, raspberries, cucumbers, mushrooms, grape skins and tomatoes. But none of these will produce hives if there is not the required specific idiosyncrasy toward the food, which comparatively few people have. These foods, in the susceptible, may produce the trouble even when eaten alone; but as a rule the eruption results from improper combinations of food and from overeating in general, plus the particular food to which the person is sensitized. The drugs most likely to cause hives are quinine, copaiba, cubebs and salicylic acid.

Hives,
Foods
Causing

Symptoms. The eruption of this disease usually comes on suddenly. There may be some previous itching in the skin, which when scratched or rubbed develops an erythematous condition. Then, quickly as a rule but not always, there appear in the affected area wheals of various sizes. These may be pale red or white, surrounded by a reddish blush on the skin. They usually are small but sometimes attain the size of a silver dollar or even larger, and may be more or less irregular in outline. This eruption burns and itches for a longer or shorter time and then usually suddenly disappears, but may remain for a few days. The wheals may appear anywhere on the body, but are more prone to develop on the face. The itching usually is intense, but in itself is of no consequence.

Hives,
Symptoms

Giant Urticaria, more often called *angioneurotic edema*, may be considered another form of hives, though it has a neurotic base more pronounced than necessary for ordinary hives. In this condition there is local edematous swelling which is hard and firm, forming large distinct wheals. It is most common on hands, face, feet and genitals, but occasionally it affects the tissues about the larynx, producing edema of that organ, sometimes with fatal results owing to closure of the passage through the larynx.

The swelling spreads with surprising rapidity, is greatly influenced by rubbing and especially by scratching. With the occurrence of the eruption there often are gastrointestinal symptoms and sometimes joint pains. As stated, this affection is a neurosis and often is found in several members of the same family; or it may be in one individual, though in some of the other members of the same family other neuroses may be apparent.

Hives,
Giant
Form of

Treatment. The immediate treatment of ordinary hives consists simply in cleansing the alimentary canal of the offending material. Complete Fast No. 3 should be used, drinking plenti-

Hives,
Treatment

fully of hot water and using the full hot enema or hot rectal irrigation. If the irritating food has been eaten within only two or three hours it sometimes is best to induce vomiting. These measures usually will correct the trouble within a day or two.

Hives,
Treatment

Many physicians prescribe a saline laxative for more prompt reduction of the wheals and associated itching. Epsom salts is considered the best saline laxative to use for this condition, so a fairly vigorously effective dose should be taken. If this treatment is used one should eat nothing but fruit for one to three days after.

In severe cases cold wet-sheet packs may be used to induce free perspiration, though on account of the itching they may be temporarily very uncomfortable. Itching in general may be relieved by air-baths, by local cold compresses, or by the application of bicarbonate of soda dissolved in water. Eating should be resumed gradually, taking only fresh fruits for one day and only light meals for the next several days. Only natural foods should be used and care should be given as to proper combinations and amounts. Also, any food known to have the effect of, or tendency toward producing hives should be avoided.

If the patient has had several attacks of hives it would be well to fast for four or five days or longer if necessary and to use Milk Diet No. 1 for several weeks thereafter, also employ Vitality-Building Routine No. 1.

Many cases of angioneurotic edema or giant urticaria respond unsatisfactorily; but some cases are much benefited by constitutional treatment as advised above. The saline laxative is necessary in some instances of involvement of the larynx and in some cases benefit is obtained by organotherapy, especially adrenal or thyroid therapy. Colonic irrigations are of great value, but in many cases internal chemical studies are necessary to determine the cause.

Hoarseness

HOARSENESS.—A roughness or harshness of the voice due to some abnormality or irritation of the larynx or the throat. It is a symptom rather than a disease. Strain from overuse of the voice may cause it or it may arise from paralysis; but as a rule it arises in connection with an inflammation of the larynx or the pharynx, or as a result of stomach irritation, especially by abnormal fermentation in this organ. There may be the symptoms associated with laryngitis, either acute or chronic (See *Laryngitis*, and *Larynx, Diseases of*); but often there is no other local symptom than the hoarseness and no general symptom.

Hoarseness,
Treatment

Treatment. It depends upon the cause what treatment will be required for permanent restoration of the normal voice. But in any case voice rest, either partial or complete, will be necessary. Often this will be all that will be required if the trouble is due entirely to voice-strain. Cold neck packs applied before retiring

and allowed to remain on all night will be helpful. Upon removal of the pack in the morning and at three- or four-hour intervals throughout the day as well, the throat should be bathed alternately with hot and cold water and given careful drying. If the hoarseness is due to some particular disease the treatment should be directed toward this. See *Larynx, Diseases of*, and *Pharyngitis*, also *Catarrh*.

HOBNAIL LIVER.—A liver covered with small flat protuberances like the heads of hobnails. It is present in cirrhosis, and prolonged liver congestion. Also called *Gin-Drinkers' Liver*. (See *Liver, Diseases of*.)

Hobnail
Liver

HOLLOW CHEST.—The term hollow chest is applied to a flat and undeveloped chest associated with drooping shoulders so the front of the body has a hollow appearance. It is not a disease, but inclines toward disease or may be produced by disease. Generally it is a result of lowered vitality which makes one disinclined to sit and stand erect. Energy is so lacking that the individual droops all the time. This, or sometimes mere carelessness, allows a round-shouldered and hollow-chested condition to develop. Any wrong habits of living which give rise to a toxemic condition with resulting inflammation of the lungs or the pleura and interference with breathing may also retard or prevent normal chest development.

Hollow Chest

Treatment. Treatment consists merely in giving attention to a general vitality-building routine which will increase the nerve energy and make one feel like holding the spine erect and taking sufficient exercise normally to develop the chest. Milk, fruits, vegetables and other foods containing an abundance of vitamins are important in the diet. Sunlight is needed as a source of energy and to assist in the assimilation of food. General exercise as well as special breathing and chest exercises should be taken. This activity must be balanced by adequate rest and sleep. All energy-wasting habits must be avoided. Constant attention should be given to holding the chest up and the chin in. Several deep breaths should be taken every hour during the day. If an actual spinal curvature exists attention should be given to the measures under *Spine, Diseases of*, in alphabetical position. For special exercises, employ those advised for round shoulders and any of the deep breathing, chest and back exercises described in Volumes III and VI.

HOMESICKNESS (*Nostalgia*).—An intense longing for home and its associations, family, friends and old environment, which produces both mental and physical depression. It occurs most often when the absence from home is compulsory and when the home life has been happy, peaceful and contented. Those who are retiring and introspective are most likely to suffer with homesickness because it is fundamentally due to wrong habits of thinking.

Homesick-
ness

The patient thinks too much about his own peace and comfort and has allowed himself to depend too much upon others. He has not learned to think and act independently. His thinking has been negative instead of positive. However, physical ill health also predisposes toward homesickness. Patients in sanitariums often suffer considerably with this longing for home. Soldiers and sailors also frequently become afflicted with nostalgia. On the other hand, persons who are vital and vigorous and who interest themselves in others and in their surroundings, whatever they may be, are very seldom afflicted with the sickness.

In this condition there are mental depression, sometimes amounting almost to melancholia, low spiritedness, loss of appetite (which may be absolute), constipation, and often great physical weakness.

Homesick-
ness, Treat-
ment

Treatment. A return home will naturally bring about a disappearance of symptoms, but this does not constitute a cure; the causes must be removed before the patient can consider himself saved from future attacks. This means that the habits of living and thinking must be corrected. The physical health must be built up and the patient must learn to become self-reliant and to be interested in outside things.

This treatment may be employed whether the patient remains away from or returns home; but it should certainly be used if he remains away. Time alone often effects a cure, through the individual becoming accustomed to the new surroundings and meeting new friends. But much quicker and more satisfactory results will be obtained if some special measures are employed.

As homesickness destroys the appetite, it is well to limit the diet to nothing but fruit and fresh water for several days. The complete fast is not advisable unless there is a definite feeling of revulsion toward any kind of food or unless some particular disease is present which indicates its use. After the period on fruit, other natural foods may be added gradually and in accordance with the appetite, giving special attention to laxative foods. Outdoor exercise, long walks and play, deep breathing of fresh air and cool baths all are important. Sun-baths also should be taken if possible. These measures not only tone up the physical body but make the patient feel more cheerful and help to occupy his time and mind. If there is difficulty in sleeping, stretching exercises, relaxation of mind and body and neutral immersion baths may be employed.

The mind should not be allowed to dwell upon thoughts of home, but should be centered upon the new surroundings, seeking points of interest and ways of serving those with whom one comes in contact. In this way new friends will be made quickly. The patient will be thinking constructively and thereby counteracting the mental depression.

HOOKWORM-DISEASE (*Uncinariasis*).—A disease caused by a worm which gains access to the small intestine and lives on the blood it sucks. This disease is widespread in tropical and sub-tropical countries. In parts of India and in the island of Porto Rico it is said that from 60 to 90 per cent. of the inhabitants are affected with it. It is also prevalent in the southern United States. In the temperate regions it is found chiefly among miners.

Hookworm-
Disease

The mode of infection may be through the skin, especially of the soles of the feet, as the larvæ of the worm are found in or upon the earth. These penetrate the skin, enter the veins and are carried in the blood to the lungs, whence they escape into the bronchial tubes and the trachea, pass up into the mouth and are swallowed.

In the body the worms mature from the larvæ. They lay their eggs, which are found in the feces which pass out of the body to infect other persons. Rarely the infection takes place directly by the mouth from the water supply or from infected fingers. The disease is recognizable by microscopical examination of the feces in which the eggs of the worm are found.

The chief *symptoms* of this ailment are anemia, bloody diarrhea, lung and heart affection, great weakness, mental inertia, tenderness in the region of the stomach and digestive disturbances.

In addition to these symptoms there often are exhibited lusterless eyes and sallow complexions, so much so, indeed they are sometimes said to have the "Florida complexion." Some of the various names of the disease denote its chief symptom: Egyptian chlorosis, tunnel-anemia, miners' anemia, mountain-anemia, etc. Children who are affected with it do not attain normal growth. The characteristic emaciation is the result of the parasite drawing blood from the walls of the intestines.

Where the larvæ enter the skin there often is an irritable eruption, called *ground itch*. This disease rarely is acute, being more often very chronic, lasting for many years.

Treatment. It is necessary to eliminate from the alimentary canal the parasites responsible for the disease. When resorting to treatment to get rid of the parasites a fast is recommended. During the fast there should be free use of water. The fast should continue for four to fourteen days if possible, or until the patient feels that he cannot safely continue it. A saline laxative at the beginning of the fast is permissible in this condition.

Hookworm-
Disease,
Treatment

If the patient begins to feel weakened as a result of such fast, three or four oranges or apples, or a similar quantity of other acid fruit, may be taken each day. This fruit, however, should not be taken during the first six or seven days of the fast. The fast-breaking routine called for by the length of the fast should be followed out.

Milk Diet No. 1 will be of great advantage in most cases, though if this is impossible the general diet, such as prescribed in the "A" fast-breaking routine followed, may be adhered to. The general vitality-building routine applicable to the vitality of the patient should be adopted and practiced day by day.

HORDEOLUM.—See *Sty*.

Housemaid's
Knee

HOUSEMAID'S KNEE.—A comparatively rare condition which appears in the knee-joint of those whose occupation calls for constant kneeling. Its main symptom is an inflammatory accumulation of fluid in a cyst in front of the knee-joint.

Treatment. Though it is true that in many instances this condition seems to be caused by the patient having frequently and for long times assumed a kneeling posture, constitutional measures must be adopted to fight the inflammation and graver symptoms. Frequently the mere application of a cold knee pack, running from the center of the calf to the center of the upper leg, will bring about satisfactory results. This pack should be put on the affected leg at night for several nights in succession and allowed to remain until the morning. Sometimes alternate hot and cold wet packs will answer better, the cold being applied last. A light degree of local sunburn (by natural or artificial sunlight) or infra-red irradiation will help, though a cold application should follow the infra-red exposures.

House-
maid's Knee,
Constitu-
tional Treat-
ment

Mud packs frequently are found more effective than ordinary packs, so they can be used in the manner described. Light massage may be of value. If definite results are not quickly secured by these measures, however, constitutional treatment of some kind must be adopted with a view of improving the condition of the blood and thus relieving the inflammation and other symptoms.

In the way of constitutional treatment it is advisable to follow Complete Fast No. 1 for one day, Complete Fast No. 3 to follow for one day, and Complete Fast No. 2 to follow for one day, making three days' fast. Fast-Breaking Routine No. 1 may be used when breaking this fast. Wherever convenient, the milk diet is advised unless the weight of the patient is considerably above the normal. In such a case any of the limited diets may be adhered to until all the symptoms of the disease have disappeared, after which an ordinary dietetic routine may be followed. If the weight is below normal the milk diet will be preferable. If the occupation makes this difficult or impossible, then Combination Milk Diet No. 2, 8 or 20 could be used in accordance with the dictates of the appetite, though it is essential to adhere to one of these diets during an entire day. An operation is often used to relieve this condition.

Various movements that tend to increase the spinal vigor will be of considerable advantage for this purpose. Self-Applied Ex-

ercise Movements 1 to 6 may be beneficially used and Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 also would be of value where the strength is sufficient to perform it easily.

HUNCHBACK (*Humpback*).—A deformed spine in which there is an angular posterior (sometimes lateral) projection, usually the result of a tuberculous process in the bones. The disease responsible for the spinal deformity usually develops during childhood, but may come on in later life. A predisposing factor is tuberculosis in some other portion of the body. Hunchback

The disease commences in the body of one or more of the spinal vertebræ, the bone softening and becoming more or less cheesy in character, eventually crumbling, with collapse of the body of the bone. This causes the pushing outward of the affected vertebræ and those nearest to them, resulting in a general humping effect. As a rule this final condition is preceded, sometimes for a long period, by local pain and tenderness, and some stiffness of the back.

The disease is commonest in the dorsal region of the spine. Apparently it may lie quiescent for years; but as degeneration progresses alarming symptoms often develop, such as paralysis of the lower limbs, of the intestine and of the bladder.

Treatment. This disease is amenable to treatment as far as relieving the inflammation associated with it is concerned. But after the deformity of the spine has been produced, little or no result can be expected. Such deformity may be termed incurable, more particularly in the adult. Hunchback,
Treatment

In the case of an infant or a young child so affected, proper measures might possibly arrest the progress of the disease or perhaps bring the spine back to its original condition; but where it has existed for a considerable time and there is ankylosis or permanent stiffness of the vertebræ a cure is practically impossible. In order to stop the inflammatory progress of the disease it is necessary to adopt vitality-building measures to purify the blood-stream and add to the vigor of the entire functional organism. A short fast should be adopted, such as advised in Complete Fast No. 2, if this is not specially unpleasant—though, if desired, Limited Diet No. 9 or 10 may be used for a time as a substitute for a fast. If a fast is desired, Fast-Breaking Routine No. 1 may be adhered to, thereafter the milk diet being preferred. If a milk diet is not taken, then Combination Milk Diet No. 3 or 8 may be used instead. Cod-liver oil should be given regularly if sun-baths cannot be taken.

Select the vitality-building routine adapted to the patient's strength and follow it out day by day with persistency. Some of the exercises named may be impossible because of the deformity, but adhere to those which can be performed easily. The spine

should not be exercised if there is active inflammation. Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 would be of much benefit by adding to the general strength of the muscular and nervous organism. Sun-baths are of particular importance in this condition; therefore the patient should become inured to the sunlight as soon as possible and spend hours a day in the nude in sunlight when possible for many months.

Hydrocele

HYDROCELE.—This condition is an enlargement of the scrotum caused by an accumulation of fluid in the *Tunica vaginalis*, one of the coverings of the testicle, in excess of the amount normally present. While there is not much pain or distress with this condition, there often is so much swelling as to cause a great deal of inconvenience. It frequently is a congenital condition, that is, it is found at birth. In later life it usually is the result of some injury to the testicle, of the infection of gonorrhea, of obstruction of the abdominal veins, of tuberculosis or of general dropsy. As it may produce a great deal of pressure upon the testicles and the spermatic vessels, it may possibly have a detrimental effect upon the generative system.

When it exists at birth it is due to the fact that the tunica still communicates with the abdominal cavity of which, as a matter of fact, it is a sort of prolongation. In this case the swelling will disappear when the infant is laid upon its back and reappear when it is placed in an upright position. It usually terminates spontaneously in the course of time, though in many cases it becomes necessary to apply a special truss. Sometimes a congenital hernia or rupture of the inguinal type accompanies this condition.

Many cases of this affection are incurable except by surgery, for even if one succeeds in getting rid of the accumulated fluid more is likely to re-form unless the surgeon eradicates the sac of the tunica.

Hydrocele, Treatment

Treatment. The treatment should be both local and constitutional in order to bring about satisfactory results. The vitality-building processes also must be stimulated to the greatest degree of activity. Cold sitz-baths on arising and on retiring at night are especially valuable, and are advantageous if taken also during the day. The greatest care, however, must be used to recuperate with a feeling of warmth. If chilliness continues for fifteen minutes or longer this bath should be discontinued altogether or else taken for a very short period. After a cold sitz-bath taken immediately before retiring, a cold wet cloth should be applied to the affected part. After following this line of treatment for a few days if no results of value are noticed, then apply a mud pack at night and allow it to remain until the morning, continuing the cold sitz-baths during the day.

In addition to these means for stimulating the vitality of the tissues, a general vitality-building routine adapted to the strength of the patient should be followed, with a view of adding to the life-giving elements of the blood. The tissues will be greatly strengthened thereby and a cure, when possible, will be far more easily effected.

There are cases of this disease where it is necessary to withdraw the accumulated fluid. Immediately after such an operation diligent treatment should be adopted to offset the tendency to re-accumulation. Mud packs are especially effective after an operation of this nature. They should be used at night. If the temperature of the body is fairly high these mud packs should be cold; otherwise they should be used hot. Only clean or sterilized earth should be used at any time, but especially after an operation.

Complete Fast No. 1 would be of special value in this disease, the fast continued for several days provided severe discomfort does not follow. When the desire for water becomes pressing, one may satisfy it to a moderate degree and thereafter use Complete Fast No. 2.

If considerable vitality is possessed, this fasting routine may be continued for one to three weeks; if the vitality is only moderate, from three to five days would be sufficient as a start. After the fast, adhere to the fast-breaking routine adapted to the length of the fast, though the milk diet would not be advised in this difficulty. Limited Diet No. 9 or 10 may be observed with advantage, though almost any wholesome diet that will agree would be in order, provided overeating be avoided.

HYDROCEPHALUS.—An accumulation of a watery fluid between the membranes or within the ventricles of the brain, commonly known as water on or dropsy of the brain.

Hydro-
cephalus

Hydrocephalus generally appears in children who exhibit physical and mental lack of development, though occasionally there is precociousness. It is congenital in origin and usually develops symptoms during the first few months of life. If it develops before birth it may interfere seriously with delivery. Sometimes the condition is a result of an acute attack of meningitis; in other cases it seems to result from exposure.

Symptoms. As the swelling extends the head increases in size. The head becomes globular, the face relatively small, the eyes protrude and are directed downward.

Hydro-
cephalus,
Symptoms

The consequence of this internal pressure is that the brain tissue begins to waste away and imbecility follows. In marked cases there usually are convulsions, a general spastic or tense condition of the body, and increased reflexes. Death usually occurs within three or four years, though life sometimes continues for many

years. Complete recovery is practically unknown in chronic hydrocephalus.

Treatment. If the treatment is begun immediately upon the first sign of the symptoms, some favorable results may follow. In any case, every possible effort should be made, for the recovery of an occasional case of this apparently hopeless condition will amply repay the untiring care that must be given to secure favorable results.

The appearance of this disease in practically every instance indicates a lack of functional vigor associated with vital depletion. Therefore one can expect what results are possible only through increasing the general vital vigor. This usually can be accomplished by suitable diet, with fasting when necessary. The primary disease must be treated, in case hydrocephalus is a secondary affection. But some cases rapidly terminate fatally.

Stimulation of the spinal centers, together with movements that exercise the spine, and, indeed all parts of the body, is essential. Complete Fast No. 2 for one or two days may be employed, to be followed by Exclusive Milk Diet No. 2, though the quantity of milk advised in this diet will have to be reduced. As a rule, it is desirable to give milk in this diet to the extent of the desires of the patient.

If the patient is from four to six years of age, 2 to 3 quarts of milk usually will be consumed daily, though if a lesser quantity is desired it should not cause worry, especially if the weight of the patient is being maintained. Milk and Fruit Diet Nos. 1 and 2 may be used with advantage if the patient does not seem to relish an exclusive milk diet. Cod-liver oil and sun-and air-baths should be given regularly.

Neutral baths may be taken every day with benefit, ranging from 20 to 30 minutes, the temperature of the water to be from 98 to 100 degrees. Before beginning the diet each day the patient's muscles should be thoroughly massaged or exercised. Sufficiently matured patients may use Self-Applied Exercise Movements 7 to 15 daily with considerable benefit. If the patient is strong enough he should go through more vigorous exercises, such as Nos. 1 to 6 of the same groups.

In acute hydrocephalus rest in a darkened room is advisable, with small blisters applied to the mastoid regions (behind each ear). Irrigation of the colon is important, particularly if there is an enterocolitis as the cause. The spinal ice-bag over cold wet cloths, or a cold coil, or frequently changed cold cloths, if there is high fever will be of service.

HYDRONEPHROSIS.—Accumulated urine in the kidney, from obstruction. See *Urine, Retention of*.

Hydro-
cephalus,
Treatment

Hydro-
cephalus,
Milk Diet for

Hydro-
nephrosis

HYDROPERICARDIUM (*Pericardial dropsy*).—The accumulation of a quantity of liquid in the pericardial sac (the heart's covering) without accompanying inflammation of the membrane. It is an accompaniment of a general dropsical condition, but may develop in any condition producing local disturbances—diseases of the blood, blood vessels or the heart, of the respiration and of the kidneys. The result is to create embarrassment of the heart-action. There often is cardiac distress, also dyspnea or difficult breathing. But pain and fever almost always are absent, because the condition is not an inflammatory one. There may be more or less severe palpitation. The symptoms aside from those mentioned, are those of the causative condition. If recovery is to follow, care and self-control must be exercised.

Hydro-pericardium

Treatment. Inasmuch as the condition usually is due to some other disease, the following out of the instructions given for that disease will be necessary. If there are no definite signs of another complaint, however, the following methods may be adopted, with assurance of pleasing results if instructions are followed closely.

Hydroperi-cardium,
Treatment

First, be sure that the patient is placed where a plentiful supply of pure air can be secured; the windows of the patient's room should be wide open, no matter what the temperature, though care should be observed that he may not be chilled. Hot-water bottles may be placed to the feet and about various other parts of the body and additional covering also may be used, if necessary, for maintaining warmth.

If the patient is suffering from a severe cold, a cold chest pack may be used, carefully watching the pulse or heart-beat. If there are symptoms of distinct relief then allow the pack to remain for one-half hour to two hours; if there are symptoms of discomfort it should be removed. If the patient is inclined to be chilly the pack should be hot instead of cold, though if hot it should not remain on more than thirty minutes to an hour.

It seems hardly necessary to state that when there are severe symptoms of this character every mouthful of food acts like a poison. In some few instances where there is a very strong craving for some acid fruit, the juice of an orange or a lemon may be taken, though even food of this character must be used with great care. The free drinking of water is especially recommended. This water may be flavored with a little lemon juice if especially desired. It may be taken hot or cold as the patient may prefer. A small daily enema may be used. This enema should be cool if there is high fever, warm if otherwise.

Great care must be used to avoid too much treatment. From every treatment there must be a distinct recuperation—definite signs that the patient has been improved thereby. If otherwise,

then the treatment should not be repeated, or its duration should be materially shortened. As the dangerous symptoms of the disease subside food may be given, as acid fruits or vegetable broth, which later may be followed with milk taken hot or cold according to desire. Care must be used to avoid overfeeding at this time, as too much nourishment may be the cause of serious relapses. It is far better to under-feed and be on the safe side than to overfeed and run the risk of serious consequences.

Special Manual Treatments 1 to 10 may be given. As the patient grows stronger more vigorous treatment of this type may be employed. A general vitality-building routine suited to the condition of the patient should be adopted also, as soon as possible. Prolonged rest is essential.

Hydro-
phobia

HYDROPHOBIA (*Rabies*).—An infectious disease characterized by muscular spasms, dread of water and other nervous symptoms, communicated to man by the bite of an animal, usually carnivorous, suffering from rabies. Dogs, wolves and jackals are the animals most naturally susceptible to rabies. In this country the disease is spread almost exclusively by rabid or mad dogs.

In rabies the nervous system is affected; the other organs of the body do not seem to become involved. The disease is said to be communicated through an unknown poison present in a mad dog's saliva and which enters the body of the bitten person. The claim is made that about 16 per cent. of all persons bitten by mad dogs will develop rabies. If the bites are severe the disease is likely to be present in a serious form.

There is a hysteric form of hydrophobia in which the patient exhibits somewhat similar symptoms merely because he is afraid of getting the disease. Genuine cases of hydrophobia are comparatively rare, because healthy persons have a considerable resistance to the disease and because many animals supposed to be suffering from rabies do not have it at all. Moreover, the disease may be prevented by prompt treatment of the bite.

The Pasteur treatment, which is so highly recommended, has gained its reputation because most of the patients taking it would not have developed the disease anyhow, because the biting animals were not rabid or the victims of the bites were immune to rabies. This treatment is not without danger and cases of death following its use are by no means unknown. Right habits of living are the best preventives of all disease.

Hydro-
phobia,
Symptoms

Symptoms. There is a period of incubation of six to seven weeks, rarely three months, after infection. The earliest recorded case occurred twelve days after the initial wound. During the period of incubation there are no symptoms, the wound healing naturally. The symptoms of the disease proper may be divided into three

stages: (1) The Premonitory Stage; (2) The Stage of Excitement; (3) The Stage of Paralysis.

In the *first stage* some irritation may develop at the site of the wound and there may be pains in the affected area, with anesthesia of the surrounding tissues. The patient wishes to be by himself, away from everyone, and has a feeling of tiredness and depression. There are nervous excitability and an intolerance of loud noises, combined with attacks of unexplainable fear. The voice becomes somewhat hoarse, and there is a beginning difficulty in swallowing, and also slight fever.

Hydro-
phobia,
Symptoms

This stage lasts for one to two days and is immediately succeeded by the *second stage*. In this stage there are severe body spasms with great pain, brought on by any slight stimulus, such as a sudden noise. The larynx and the muscles of respiration are first affected. Spasms of the muscles of mouth, pharynx and larynx occur during attempts to drink, or from the sight of or even the mention or thought of water, although great thirst is present. The severity of the throat spasms, occurring as they do in connection with water, has given the disease its name of hydrophobia, which is the combination of *hydro*, meaning water, and *phobia*, the fear of.

The spasm of the larynx causes peculiar throat noises which some people think are attempts to bark like a dog. The breathing often is labored, the saliva becomes profuse, very viscid and sticky and cannot be swallowed; it hangs in strings from the mouth. In severe cases the patient becomes maniacal and suffers from intense excitement and hallucinations, often accompanied by violent paroxysms of rage. General spasms may occur later. Between the spasms the mind is clear. The temperature rises, sometimes to 103 degrees. The pulse is rapid. This stage lasts for one and one-half to three days and is followed by paralysis.

In the final stage, *paralysis*, the spasms cease and a general paralysis supervenes. The patient becomes comatose. When death occurs it generally is within three to five days from the onset of the first symptoms. Should the disease take a favorable course, the symptoms all begin to subside, the most favorable sign being the ability to drink water. When death occurs it generally is from the inability to breathe or from heart-failure.

Hydro-
phobia,
Paralytic
Stage

The symptoms of this disease seem to be brought about in some instances by the fear which possesses the victim of a bite of an animal, from which the disease may be contracted. Many people seem to take it for granted that everyone who is bitten by a dog must contract hydrophobia. This is an untrue and dangerous belief.

Treatment. The bite of a dog, whether or not the animal is known to have rabies, should be promptly attended to. The

Hydro-
phobia,
Treatment

wound should be thoroughly cleansed as soon as possible. It is best to secure a ligature on the side of the wound nearer the heart, loosening it by degrees after the wound is cared for. Alcohol, boric acid, iodine, or a proper solution of bichloride of mercury (or any other modern antiseptic of known effectiveness) may be used to disinfect the wound; or the wound may be cauterized.

Before using either method the wound may be sucked so that it will bleed freely, holding equal parts of water and alcohol in the mouth during the suction. The wound should not be closed, nor allowed to close quickly. The patient should avoid fear of developing the disease and should give careful attention to the general habits of living. If he has reason to believe that he is in a toxemic condition, it would be well for him to take some special eliminative treatment in order to be on the safe side.

A fast for a few days with free drinking of water and the use of enemas would be very helpful. A sweat bath of some kind, or a neutral bath 98 to 100 degrees for an hour or more till symptoms abate, and deep breathing of fresh air should also be employed. The milk diet would be advantageous after the fast; but if necessary to use solid food, plenty of water should be taken between meals.

If symptoms of the disease have already developed the elimination should be stimulated in every way possible. The cold wet-sheet pack may be given daily or even twice the first day, employing hot-water bottles to bring about quick reaction to induce free perspiration. If more convenient, any other means of inducing free sweating may be used; for instance, a warm sheet pack or a warm tub bath to induce perspiration. Fasting, of course, is necessary, so if water cannot be drunk an attempt should be made to absorb it from the alimentary tract by retaining the water of a slightly cool enema after cleansing the bowels with a previous enema. If the water is retained, this enema may be repeated every hour until the acute symptoms subside. Cold compresses may be applied to the head and the upper spine to assist in controlling the muscular spasms. A maximum amount of fresh air should be provided, but the patient must be protected from draughts.

It may be mentioned that in the Pasteur rabies treatment several injections are made beneath the skin of the person bitten. These injections consist of emulsified portions of the dried spinal cords of rabbits which have been inoculated with rabies. The treatment requires from 15 to 21 days, varying with the extent and severity of the bites, injections of increasing strength being given.

The value of the Pasteur treatment is doubtful, at best. An English publisher has reported three hundred cases of death occurring in persons who had taken this treatment, tending to show that it is far from infallible.

Hydrophobia,
Elimination in

Hydrophobia,
Pasteur
Treatment of

HYDROTHORAX.—Dropsy in chest or pleural cavity. See *Dropsy*.

HYPERGONADISM is excessive internal secretion of the gonads or sexual glands (the testes or the ovaries), with sexual irritability, sexual over-stimulation, erethism, nymphomania and other abnormal symptoms. In treatment, thymus extract sometimes opposes gonad activity. In women mammary substance will usually have better effect. Any irritating factors must be removed; circumcision may be necessary (in women as well as men). Rectal disorders, pelvic congestion, general toxemia and mental unhealthiness must be corrected. The diet must be non-stimulating. In fact, a fast would be advisable, followed by an Alkalinizing, or Limited, or Uncooked, or Fruit and Nut, or Strict Vegetarian, or Lacto-Vegetarian Diet (see these Diets in Vol. VII, Sec. 6).

Hyper-
gonadism

HYPOADRENIA, or adrenal insufficiency, results from overwork, worry, toxemia, influenza, typhoid and numerous other conditions. It is often a slow and discouraging climb back to health by any means, even the most properly adjusted natural measures; therefore much time is often saved and the morale of the patient greatly improved by adrenal therapy (not adrenalin), perhaps with gonad products added and often thyroid also, since with hypogonadism there is always some degree of hypothyroidism, also.

Hypoad-
renia

HYPOCHONDRIA.—A morbid state of mind, hysterical in nature, in which the sufferer imagines himself to be the victim of some grave disorder, often having a wide variety of symptoms. In some cases this brooding may develop into insanity.

Hypo-
chondria

Treatment. In order to treat this malady and similar ones it is advisable to learn as much as possible of its character. Its symptoms frequently are caused by diseases of the stomach and the intestines. In fact, one can feel sure that some digestive difficulty is the cause of the disorder in practically every instance; the foreign or poisonous elements that have accumulated in the blood clog both body and brain; hence the natural exhilaration of normal health never appears in the case of a hypochondriac. If one will use vitality-building methods described in the treatment of nearly all ailments due to decreased vitality, the changes in one's condition will be encouraging in a reasonably short time.

It is wise to begin the treatment of this disease with a fast. Complete Fast No. 2 is perhaps the best to be used for two to five days if one is below normal weight, though if above normal weight it could be continued for ten days or longer in case there is not a serious loss of strength. The Fast-Breaking Routine adapted to the length of the fast should be used after this fast. Milk Diet No. 2 is especially valuable in assisting in a recovery.

Hypo-
chondria,
Fasting in

Where there are defects in assimilation, indicated by loss of

weight, a milk diet is especially important. In cases where this diet cannot be adhered to as prescribed, Combination Milk Diet No. 3 or 12 may be used instead. Where the weight is above normal, after having satisfactorily broken the fast Limited Diet No. 3 or 6 may be followed with advantage.

Constipation is the direct cause of this disorder in many cases, so if there is any tendency to this it should be overcome at once by proper treatment.

Special Manual Treatments 11 to 16 or Self-Applied Exercise Movements 1 to 6 may be recommended for daily treatment; these will stimulate the vital energies to a considerable extent, and where the patient is fairly strong Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be recommended as morning or evening exercise. Long walks are excellent for this ailment. It would also be well to look over the vitality-building routine and add exercises of an appropriate nature to that one adapted to the strength of the patient. Outdoor life, air-baths and sun-baths are especially efficacious. Mental suggestion is helpful.

HYPOCHLORHYDRIA.—Deficient hydrochloric acid in the stomach. See *Hypopepsia*.

HYPOCHYLIA GASTRICA.—See *Hypopepsia*.

Hypo-
gonadism

HYPOGONADISM is deficient internal secretion of the gonads. In the male there may be impotence, asexualism, presenility and infantilism—at least certainly some of these; in the female, amenorrhea, premature menopause, infantile uterus, asexualism and sterility. Vitality-building measures including diet, hydrotherapy, exercise and spinal manipulations will be necessary to produce the best results. (See *Impotence* for treatment.)

Hypopepsia

HYPOPEPSIA, (*Subacidity*, *Hypochlorhydria*, *Hypochylia gastrica*).—These terms have different shades of meaning, but all mean reduced gastric secretions or reduced hydrochloric acid in the gastric secretions, hence a dyspepsia. *Apepsia*, *achylia* and *Achylia gastrica*, and *anacidity* mean such complete cessation of secretion of gastric digestive juices or of certain elements of them that there is complete cessation of digestion.

Causes. In chronic gastritis the excessive output of mucus causes a neutralization and inhibition of gastric secretion. Early in gastric cancer; in passive gastric congestion; severe anemias; severe toxemias, such as in exophthalmic goiter and polyarthritis (arthritis of several joints at the same time); in such neuroses as neurasthenia and hysteria; in *Tabes dorsalis* (locomotor ataxia); in long-standing diarrhea from any cause, there is usually subacidity but in some cases an anacidity. In prolonged worry, anxiety and suspense there is subacidity or anacidity, rarely a hyperacidity. Overactivity of the adrenals may cause constriction of the ar-

terioles which supply the stomach glands and thus reduce the secretions; yet exhaustion of the adrenals may result in insufficient gastric secretion through failure of normal stimulation provided by the adrenal secretion.

The excessive use of tea, coffee and alcoholic beverages will produce subacidity. In some instances there is a congenital defect; in others loss of the gastric mucous membrane through scarlet fever or some other febrile condition. But in the majority of cases the condition follows on a *hyperacidity* (or *hyperpepsia*) which results from long-standing unhygienic conditions, wrong eating, the eating of excessively hot or cold foods, wrong combinations and of spices, condiments and other direct gastric irritants. In these cases it is an exhaustion phase of over-stimulation of the gastric glands, plus at times more or less destruction of the gastric lining.

Symptoms. There is great variation in symptoms, nothing positively indicating the condition. The chief symptoms are a pressure high in the abdominal region (in the epigastrium) before and after meals, especially after meals, with fulness, eructations, and belchings, reduction or loss of appetite, intestinal disturbances and rumblings, constipation or diarrhea, foul stools from excessive putrefaction and fermentation of food made possible through absence or reduction of the disinfecting gastric juice, sometimes nausea, headaches, great nervousness and loss of weight.

Hypopepsia,
Symptoms

Treatment. It should be stated at the outset that removal of the causative condition, which usually is possible, will correct most cases of this disorder, though it may require several months. In this condition more liberal feeding is allowable than in most other forms of ill health, though overeating necessarily must be avoided, since it often is a prominent factor in the cause. Acid fruits serve in a measure to replace gastric acid, hence should be used freely. Fats are likely to cause disturbance, so should be used in only small amounts. Proteins should be used in amounts only sufficient to maintain nutrition; but animal proteins, including raw eggs and "ripe" cheeses, should be avoided, as they undergo rapid and pronounced putrefaction in this condition, besides are directly irritating.

Hypopepsia,
Treatment

Malted nuts and sour milks, purees of beans, peas and lentils are excellent forms of protein for this trouble. Sweet milk sometimes is not well borne, though when taken after a fruit fast it may produce excellent results, especially if part of the cream is removed. Lemon juice may need to be taken with it in fairly large amounts. With the milk diet it may be necessary to use bran or bran muffins, agar-agar, prunes or other bulk or fruit laxative daily. The milk should be the purest obtainable and raw or certified.

Often a strict sour milk diet will be even better than one of sweet milk.

Later, or in case the milk diet is not used, any well-divided fruit or vegetable may be used. Purees of fruits and vegetables are especially valuable. If such finely divided foods are not used (and even if they are, for that matter) thorough mastication must be practiced, to stimulate gastric secretion, to aid the stomach, which cannot divide foods as well as normally, and because the foods leave the stomach quickly. Carbohydrates may be used fairly freely: potatoes, ripe bananas, rice and cereals. Whole-grain cereals and their products should be used. Soups, cottage and other fresh cheeses, gelatine, custards, fruit puddings, soft-cooked eggs, macaroni, ripe olives, green salads are permissible.

Condiments and spices and sugar products (candies, etc.) should be avoided, as well as meats and meat extracts, fish, fowl, game, and heavy, rich foods of all kinds.

Hypopepsia,
Special
Treatment

Among treatments that may be used to assist in the digestion of food and that may have some favorable effect toward restoring the stomach to normal functioning are the following: A cold compress or an ice-bag over the stomach for an hour before meals; the dorsal percussion douche, fairly prolonged hot and short cold; the long hot and short cold douche (moderate force) to the stomach region; the fan douche to the dorsal and stomach regions; the shallow bath at between 75 and 60 degrees F., for one-quarter to one-half minute; the wet-sheet pack, discontinued when reaction has become complete; cold friction baths, especially to the trunk and particularly to abdomen and spine; the cold rubbing sitz-bath; the natural bath; the protected abdominal heating compress, starting with a temperature of 60 degrees or even less; the rapid drinking of three or four ounces of cold water half an hour or so before meals; general tonic baths once or twice a day; electric-light cabinet bath or local abdominal irradiation with an electric-light therapeutic lamp ten minutes before meals. Electrical treatments (galvanism, faradism, sinusoidal current and diathermia) and spinal treatments also will be beneficial, when properly given.

Hypo-
spadias

HYPOSPADIAS.—This is not a disease but is a deformity of the penis in which the opening of the urethra, instead of being at the end of the penis, is found on the under surface of the organ usually just under the glans, or head, or a little farther back. If very far back, and if accompanied by other deformity of the organ, it may be mistaken for hermaphroditism. Sometimes this opening, instead of being in its normal position or on the under surface, will be found upon the upper portion of the body of the penis; in this case it is known as *epispadias*. The only treatment for either abnormal condition is surgical.

HYSTERIA.—A mental and nervous disorder characterized by lack of control over acts and emotions and by sudden convulsive seizures with emotional outbursts. It may vary from mere morbidness with occasional fits of laughing and crying to melancholia with attacks similar to epilepsy. It is due to both mental and physical causes. Hysteria

The mental causes include general wrong habits of thinking, failure to make the proper adjustment of the sexual problem due to lack of sex education, mental overwork, or any form of nervous strain or moral or emotional shock, including domestic troubles and thwarted love affairs. The physical causes include inheritance of a sensitive, delicate nervous system and general wrong habits of living, especially the use of alcohol, improper diet and lack of sleep.

A diet containing irritants, such as tea, coffee, spices and condiments and one which is constipating are especially likely to induce hysteria in persons otherwise susceptible. The affection is commonest in females, and is most likely to begin between the ages of 15 and 30. It is said that the Latin, Slavish and Jewish races are more susceptible than other races. In most cases the mental causes are the most important, the most prominent and the most difficult to correct.

Symptoms. The chief mental symptoms of hysteria are the tendency to laugh and to cry upon the slightest provocation or even without any provocation and great excitability followed by moroseness and depression. There are many different forms of hysteria. In some of these there are severe convulsions, resembling epilepsy, except that the patient does not bite the tongue nor pass urine during the attack nor fall so as to hurt herself. She may be rigid and form a stiff arch between the nape of the neck and the heels. Hysteria,
Symptoms

If the patient falls she does so without injury and there is a great deal of emotional display when coming out of the attack. At this time a considerable amount of urine may be passed, also much gas from the bowels. In some forms the patient screams, fights, and contorts herself.

In other forms she may assume attitudes which express certain emotions, such as happiness, sexual desire, etc. Again, in other forms there are alternate laughing and crying, and loss of sensation in the skin. The senses of sight, hearing, taste and smell may be affected, and *Globus hystericus* or a feeling of a lump and constriction in the throat may be present. There may be fainting and even trance-like or cataleptic seizures may occur. Hysteria,
Globus
Hystericus
in

Some patients remain in bed for months, oblivious to everything, some having attacks of delirium and sometimes suicidal attempts.

The breath is foul and the throat is dry. In other more or less chronic forms a desire for sympathy leads to exaggerated symptoms, to self-inflicted wounds, and to malingering or deceptions as to the patient's general condition. In fact, this state may simulate many severe organic conditions, such as appendicitis, gastric ulcer and disease of the spinal bones.

Hysteria has now a much wider significance and range than was formerly thought to be the case, due in large part to dissociation of the mind. It is likely to diminish after the age of 30 or 35 years, although sometimes hysterical paralysis will exist for a long time and then suddenly disappear after some shock.

Hysteria,
Treatment

Treatment. Since the causes are both mental and physical, treatment should be directed toward both the mind and the body. Proper sex education should be immediately given, especially as regards sublimations of sexual desires or normal sexual indulgence for the married patient; and the patient should be taught general right habits of thinking, as described in the section *Mental and Psychic Healing*. (See Vol. VI, Section 7.)

Relaxation, slow, deep breathing and auto-suggestion should be practiced several times each day. These suggestions should be of poise, patience, calmness, kindness and all-embracing love. At all times the patient should make every effort to keep his mind away from himself, by occupying it with work, play and measures for improving the general, physical and mental health. An interest in outside things and other persons can be developed if one makes the effort.

Hysteria,
Amuse-
ments in

Right kinds of amusement are important, outdoor play being the best. All reading should be inspirational and uplifting, and avoid that which is exciting. The patient should lead a well-ordered, regular but busy life. Idleness or too quiet a life leaves too much time for introspection and worry. The things which keep one busy should be healthful in character, including much play and a general vitality-building routine, together with work that is not too confining and that does not involve too much mental and nervous strain.

In severe cases where the patient exhibits no particular desire to get well, someone else must give the mental suggestion, and more attention will need to be given to physical measures until such time as the increase in general vitality induces a desire on the part of the patient to overcome the hysteria.

The physical measures which should be employed in all cases include proper diet, outdoor exercise and play, long walks, deep breathing of fresh air, sun-, dry friction and tonic, warm or neutral baths, and ample sleep. If any definite physical abnormality is present, the diet should be such as required for that particular

disease, otherwise a normal solid-food diet would be satisfactory, with a day or two every month on nothing but fruit. Tea, coffee, spices, condiments, smoked and pickled food should be avoided.

Hysteria,
Physical
Therapy in

In most cases it is well for hysterical patients to start treatment by taking for several days nothing but fruit, then Milk Diet No. 1 for about a month and then a solid food diet. Most hysteria patients are considerably run down and need the milk diet for building better blood and more completely nourishing the nerves. If the full milk diet is not convenient, one of the milk and fruit diets may be used.

Aside from the diet, outdoor play, air- and sun-baths are especially important. The play takes the mind away from self and induces cheerfulness, while the air- and sun-baths are calming and at the same time invigorating to the nerves. Daily cool baths also are an excellent tonic. Suitable physical activity must be balanced with adequate rest and sleep.

The immediate treatment of a hysterical seizure depends somewhat on the nature of the cause. If it is due largely to temper and irritability, simply dash some cold water in the patient's face and then ignore him or her, as the case may be. These attacks may be distinguished by the fact that the patient is careful not to injure himself regardless of how violent his actions may be.

In a genuine attack, cold compresses should be applied to the head and the back of the neck or, if this cannot be done, to the face. Cold water may be dashed in the face if it cannot be otherwise applied. Plenty of fresh air should be provided, preferably cold air. Some of the patient's clothing should be removed to facilitate easy breathing and to expose the skin to the air. Some physical restraint may be required to put these measures into effect.

Hysteria,
Treatment of
Attack

As soon as the patient will cooperate, a neutral immersion bath (of 98 to 100 degrees) may be given and continued until the excited condition subsides. If this is not convenient a hot foot-bath, with cold applications to the head, may be used instead. The neutral immersion bath may be used daily while on a milk diet; but otherwise cool bathing would be better except when a neutral bath is required to relieve an attack. Following an attack the patient should have rest, quiet, darkness and, if possible, sleep until the lost energy has been recuperated.

In following the vitality-building routine weak patients who are not able to take much active exercise may be given massage, Special Manual Treatments 11 to 16, and electrical treatments, especially static and high frequency currents. After some strength has been gained manipulation of the spine and all joints may be employed to advantage.

Whatever else is done, however, do not neglect the mental side

of the treatment, since this is of great importance. The patient must learn to direct his mind into the proper channels if he is to become a well-ordered, normal, rational individual, able to meet the vicissitudes of life without complaint and rebellion.

It should be borne in mind that psychoanalysis often is of value in hysteria and that in a few cases hypnotherapy may be considered as an aid to general physical therapy and psychotherapy. One form of psychotherapy of value and free from harm is the use of placebos—pills or tablets of sugar of milk or flavored liquid without any medication—the patient to understand that he is taking a very effective medicine provided, of course, he has not completely turned against all medication.

ICHTHYOSIS.—See *Fish-skin Disease*.

Icterus

ICTERUS.—Icterus—a symptom, not a disease—is a condition in which there is a staining of the skin, mucous membranes and tissues by bile pigment. This staining may vary from a light yellow to a deep greenish bronze. A person whose tissues are thus stained is said to be jaundiced. (See *Jaundice*.)

IDIOCY.—See *Insanity*.

Impetigo

IMPETIGO (*Scrum-pox*).—An acute inflammatory skin disease characterized by the formation of occasional pustules. The real cause in all cases is an accumulation of toxins, resulting from wrong habits of living. The eruption is merely nature's method of eliminating the poisons.

Impetigo,
Contagious
Form

Symptoms. The *Contagious Form* (*Impetigo contagiosa*, usually referred to simply as impetigo) is communicable. It appears in epidemics (at times) in institutions for children, being the most common skin disease of school children, especially of the poorer classes. It appears also in adults, particularly in the beards of men in "foul shave," which is not the same as barber's itch.

The eruptions are yellowish flat vesicles, generally on face, neck and hands. These vesicles soon become pustules with crowns indented, surrounded by red areas. If the pustules break, the escaping contents infect the adjacent skin. Crusts which form curl up from the edges and fall off, the remaining red spots soon fading to normal. Slight fever and itching are common. The entire body may be affected, spreading from the pustule contents. Within one or two weeks recovery takes place.

Impetigo,
Herpetic
Form

The *Herpetic Form* (*Impetigo herpetiformis*). This acute form is not common. Crops of small pustules appear in clusters on the lower abdomen, in the groins and on the inside and posterior surfaces of the thighs. At each outbreak of pustules, chills and fever develop, also various severe general symptoms. Septic infection is considered as the cause, since pregnant women and those who have just been through childbirth frequently have it, though it also

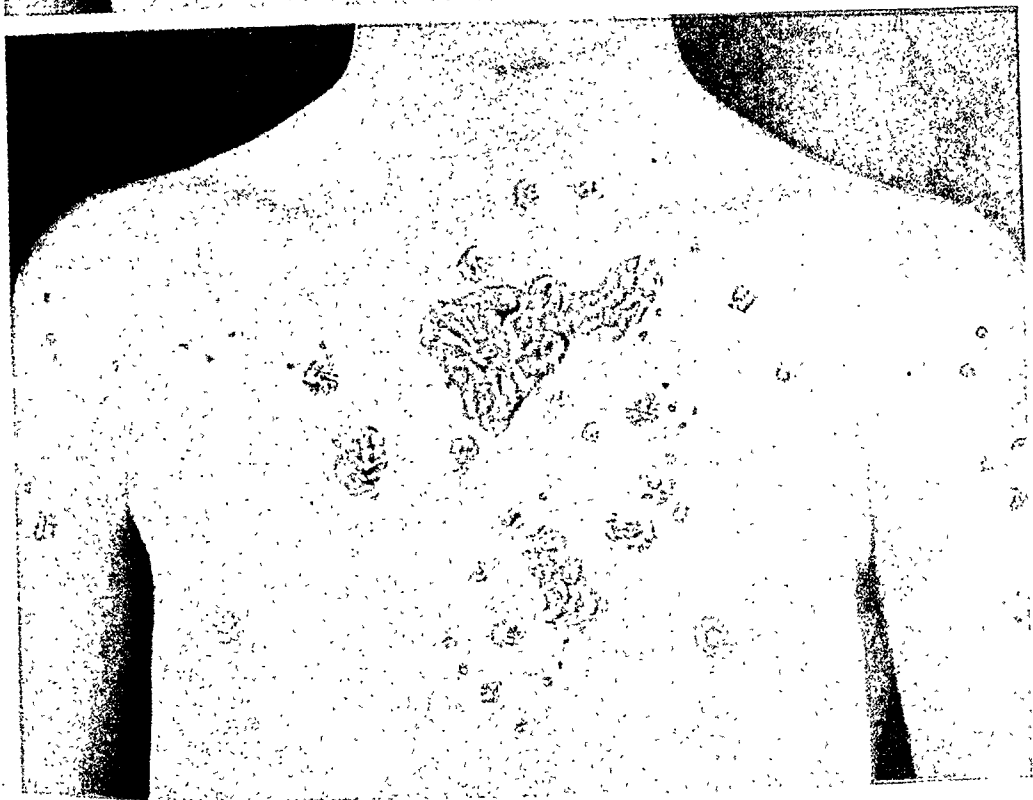


PLATE 103. Upper illustration shows skin condition in impetigo, a contagious disease, prevalent among school children. Lower illustration shows psoriasis, a non-contagious but stubborn skin disease.

develops in men and children. The majority of cases, even under the best of treatment, may fail to respond.

It is reported that whenever a case has recovered the chief treatment has been daily a half hour or longer in an immersion bath at temperatures of 95 to 100 degrees F.—the continuous warm bath, the head being covered with a cold wet turban during the bath. The skin often is protected with some such substance as vaseline, laonolin or mutton suet during the bath; but usually this is not necessary unless the bath is of considerably longer duration.

Treatment. Since the symptoms indicate that extra elimination is required, general constitutional treatment should be used. Mere local treatment would not be fully effective. It is well to use Complete Fast No. 3 for three days or two at least, after which a diet of nothing but orange juice or some other kind of fresh fruit may be adhered to until the eruption subsides. An enema should be taken daily during this period. A cold wet-sheet pack may be taken every other day; or, if the facilities for this are not available or if the patient's reactive powers are poor, either a hot immersion bath (with cold turban) for about 15 minutes, followed by wrapping in blankets so as to induce free perspiration, or a prolonged warm bath (with cold turban) should be taken daily. (See under symptoms of the *Herpetic Form.*)

Impetigo,
Treatment

In simple impetigo the eruptions may be soaked with a boric acid solution in boiled water, or soaked with oil, then carefully removed, after which there should be frequent bathing of the parts with boric acid solution. Strict cleanliness is important. Activity should be restricted to walking and deep breathing. Plenty of rest and sleep should be secured.

After the eruption has subsided Milk Diet No. 3 should be very beneficial, or if this cannot be used one of the milk and fruit diets may be employed. If the patient is overweight, however, or if no arrangements can be made for a milk diet, a solid-food diet of fruits, vegetables and some form of sour milk should be used for several weeks, giving special attention to raw food and carefully avoiding overeating. Plenty of water should be drunk between meals. A general vitality-building routine suited to the patient should be employed, giving special attention to air-, dry friction, sun- and cool water baths.

IMPOTENCE.—A condition, often nervous in origin, which renders the male unable to copulate. Physical sexual desire is diminished or absent, though there may be a keen mental desire. Impotence may be permanent or temporary. (See also Volume IV.)

Impotence

Impotence may be due to deformities, either congenital or acquired. Oftener, it may be due to gonorrhea or severe constitutional disease, fever, diabetes, etc. Stricture of the urethra causes im-

potence in numerous instances. But the most common form of impotence is that due to general nervous debility or lack of nerve force, exhausting physical exertion or exhaustion of the sexual organs or their nerve centers resulting from excessive sexual indulgence. Not infrequently the sexual vigor is normal but a psychic inhibition results in psychic impotence, due to disgust, ridicule, anger, fear of detection, or some other condition not physical.

Impotence,
Treatment

Treatment. Where the defect causing this condition is due to deformities, these must be corrected before a change for the better can be expected. When it is due to a general vital depletion one may expect a change for the better coincidently with the increase of vital vigor that will result from following the suggestions below. One's vital power depends entirely upon the condition of the nervous system. Nervous depletion from any source naturally will lessen this power. Nervous energy depends to a large extent upon muscular strength, though occasionally a man may be found who possesses unusual nervous power and yet has weak muscles.

Great nervous energy in practically every case is associated with good muscular vigor. This does not mean that in all cases one must possess unusual muscular development in order to possess much nervous vigor, because in many instances unusual muscular strength may be found without especially prominent muscular development. Therefore, in remedying impotence we must adopt those means that will increase the strength of the internal muscular system. Naturally, diet will be of considerable importance in this connection; but even diet cannot be expected to bring about a change for the better unless exercise is used to add strength to the muscles throughout the entire body.

Impotence,
Diet for

The exclusive Milk Diet No. 2 following a three to ten days' fast would be of special value in beginning the necessary nerve-toning process, provided one finds it convenient; where not convenient then a milk and fruit diet, such as recommended in Nos. 2 and 3, may be used advantageously, at least for the first few days. But, as long as one avoids overeating, and finds a diet of wholesome foods and has no difficulty with his digestion, he can rest assured that he is doing about as much as possible toward bringing about a change for the better in his condition.

Impotence,
Exercise for

In selecting a daily exercise, of special importance are Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18; Hip and Spinal Manipulations 27 to 32 may be used at any preferred time in the day. Spinal traction with a deep therapy lamp suspended over the patient's back for ten to twenty minutes is beneficial. Long daily walks are specially valuable in this malady, the walk to be continued until one is slightly fatigued. All the exercises for stimulating the spine would be of value in this con-

nection, including various movements such as are illustrated in Volume VI. One should remember that added spinal vigor means additional nervous strength, so the more nervous energy one can develop the greater will be the advance toward a definite recovery from this ailment. Specific Spinal Manipulations may be very helpful.

By way of obtaining the greatest possible vigor of the organs concerned, a cold sitz-bath is suggested to follow the exercises in the evening, granting that some other form of cold bath, such as the shower or the plunge, is used in the morning. Sea bathing and sun-baths are of considerable value.

It need hardly be said that any dissipation or excesses that may have been indulged in previous to the appearance of the ailment must be religiously tabooed if one is to expect recovery. Persistent efforts are essential. Unless engaged in hard physical labor a two-meal-a-day routine would be far more satisfactory than three meals daily. When beginning the treatment it would be advisable to adopt the following plan.

If living in a home where meals are served thrice daily eat the first meal at noon and the second meal in the evening and do not fail to follow the suggestions as to thorough mastication and the necessity for enjoying the food as discussed in Volume II.

To eat without appetite is injurious at all times and is specially productive of unpleasant results if one is being treated for an ailment of this character.

In some cases it may be permissible to employ internal secretion therapy, using especially testicular substance or extract. Prostatic massage, either manually or by electricity, may be used in some instances beneficially. The passing of urethral sounds is necessary in cases due to pronounced urethral stricture. Suggestotherapy may be required in an occasional case, especially of psychic impotence.

INCONTINENCE OF URINE (*Enuresis*).—Incontinence of urine is the inability to prevent discharge of urine. In cases of this kind there is dribbling of urine constantly, or a sudden uncontrollable desire to urinate. It may be caused by partial or complete loss of control of the sphincter muscles of the bladder through weakness of the nerves or on account of disease.

In children it is common at night during sleep and is called *enuresis* or *bed-wetting*. The most common causes in children are irritation from intestinal worms, long foreskin, uncleanliness of the space beneath the foreskin and reflex irritation from enlarged tonsils. Nervousness and hysteria also are causes in children. As a rule this form of incontinence of urine disappears at puberty or several years before. (See *Bed-Wetting*.)

Impotence,
Hydro-
therapy for

Inconti-
nence of
Urine

Inconti-
nence of
Urine, Treat-
ment

Treatment. The underlying cause must be treated if known. One of the most important measures in the treatment of incontinence of urine in adults is regulation of the diet, with special emphasis upon bland and laxative foods. Tobacco, meats, gravies, spices, condiments, tea and coffee, alcoholics, sugar, syrups and all sugar and white-flour products are detrimental in this condition.

A fast, short or long, depending upon the patient's strength, energy and weight, should be taken, with considerable water regularly; hence Complete Fast No. 3 is the best to follow. Fast-Breaking Routine No. 1 or 2, according to the length of the fast, should follow, then preferably Milk Diet No. 1. The large quantity of milk will cause very frequent bladder evacuation, but this will be beneficial. However, it may be advisable to discontinue the milk at four or five o'clock daily. An enema should be taken daily during the fast, also during the milk diet if necessary. The later diet may be Combination Milk Diet No. 2 or 3; Milk and Fruit Diet No. 2 or 3; Salad Diet No. 5, with nuts added to one of the vegetable meals; or any other diet consisting of wholesome foods and free from those listed above as injurious.

Walking is particularly helpful in this condition, the length of the daily walk or walks gradually increasing until one can walk from five to fifteen miles a day with only slight fatigue. All exercises involving the spine, especially the lumbar region and the lower abdomen, hips and inner thigh muscles, would be valuable.

Inconti-
nence of
Urine,
Hydro-
therapy for

Nude sun- and air-baths and barefoot walking in the morning dew should be employed when possible. The running (flowing) cold foot-bath; cold douche to the soles of the feet or to the lumbar spine; cold rubbing sitz, alternate hot and cold sitz, or prolonged neutral sitz followed by the hot sitz for six minutes and the cold sitz for a minute or so; hot pelvic pack, "T"-bandage, or pelvic heating compress; cold spinal rubbing or sponging—any of these may be used, usually with benefit.

The general cold mitten friction bath or cold wet-towel rub will improve general nerve tone. Heat over the bladder and the lumbar spinal regions will be helpful, especially if followed by a brief cold application. This heat may be supplied by any suitable means, though radiant heat or infra-red will be best, alternating these two on successive days if convenient.

Stimulation of the fifth lumbar vertebra with sinusoidal current is valuable. Abdominal massage may be helpful. One should sleep on a hard mattress; the foot of the bed may be elevated. One should be warm during sleep, but without an overweight of clothing. Sexual continence may be necessary for a long time.

Indigestion,
Acute

INDIGESTION, ACUTE.—An extreme disturbance of the digestive functions. It might be termed rebellion of the stomach against

abuse, as it is due to overeating and other dietetic errors, especially to the ingestion of a large meal composed of many different articles of food.

Symptoms. The chief symptoms are severe gastric pains and cramps, bloating of the abdomen from the distended stomach, coming on immediately or within a few hours after a meal. Sometimes the symptoms first come on during sleep, after a late dinner or supper. There are more or less nausea, heartburn and headache, perhaps a cold and clammy sweat. Vomiting sometimes occurs, the stomach contents showing little signs of digestion. The symptoms usually are relieved when the stomach is emptied, though there may follow vomiting of mucus and bile. A severe attack of diarrhea frequently follows shortly, due to passage of some of the irritating contents of the stomach into the intestinal tract.

Treatment. The treatment consists simply in emptying the stomach after drinking from four to six glasses of warm water by tickling the inner throat with the finger or by administering an emetic of a teaspoonful of salt or mustard in a glass of lukewarm water. After the stomach has been emptied an enema should be given if the patient is constipated. The patient should drink freely of water. Hot abdominal compresses may be applied to quiet the nerves and relieve pain. Eating should not be resumed for at least 24 hours. The diet should be light for several days. Future attacks may be avoided by more careful habits of eating through using correct combinations of foods. Specific Spinal Manipulations (naprapathic, osteopathic or chiropractic) often are beneficial.

Indigestion,
Acute,
Treatment

See also *Ptomaine Poisoning*, which often is confused with acute indigestion.

INFANTILE PARALYSIS (*Acute anterior poliomyelitis*).—An acute supposedly infectious disease of childhood characterized by sudden onset of fever and often convulsions, followed by paralysis of one or more muscle groups. The fact that it sometimes occurs in epidemics is the reason that it is supposed to be infectious. However, the parents of children properly fed and cared for need not fear the disease.

Infantile
Paralysis

The fundamental cause in all cases is a general toxemia. Fever and certain symptoms are not required and do not appear unless elimination is necessary. If a specific germ is the cause of the symptom, it is the poisons in the body which furnish the soil for its growth and development.

This disease is widespread on the European continent and in North America. Sporadic or casual cases are common, but of late years it has been appearing frequently in epidemic form. The general frequency of the disease is increasing. It is most common in the late summer and in the fall. Cool weather is likely to cause

a subsidence of the disease. The majority of the cases are in children under five years of age. The frequency of the disease is less as children grow older, but even adults are not immune, especially when it appears in epidemic form. The male and the female sex seem to be about equally subject to contract the disease.

Infantile
Paralysis,
Symptoms

Symptoms. The incubation period of this disease is doubtful, but is generally believed to be five to ten days, during which there may be slight malaise and some sore throat, but usually this is not complained of by the patient, even though present. The onset is sudden, with fever, great weakness, vomiting and sometimes diarrhea. There may even be convulsions. In most cases the parents are likely to attribute the symptoms to an upset stomach or a cold. The child is put to bed and, being in bed, the rapidly supervening paralysis is not at first noticed. There may be some pain and sensitiveness to the touch but these are unusual. The reflexes are absent in the affected limbs. The acute symptoms last a few days and when they subside the paralysis may be noticed for the first time.

As a rule this paralysis may affect many or few muscles, one or both arms, or one or both legs, or one arm and one leg on the same or opposite sides, or, in severe cases, all of the extremities. The patient recovers slowly, but there usually is a wasting away of the affected muscles, though frequently the paralysis is greatly improved by the end of the first three weeks. In long-continued cases there may be not only wasting of the affected muscles (atrophy), but (in children) a lack of growth of the bone when many muscles attached to that bone are affected.

The mortality from this disease is not great. The children who die from it do so usually from paralysis of the muscles of respiration. They are likely to pass away early in the disease. If improvement in the paralysis does not begin by the end of the first three months it is difficult to obtain perfect results from treatment. But even if there has been slight improvement during these early months a close adherence to the following treatment may result in great improvement or even in the entire removal of all of the symptoms.

Infantile
Paralysis,
Treatment

Treatment. Treatment should be prompt and vigorous, as this disease usually begins suddenly. At the first sign of trouble all feeding should be stopped and the bowels thoroughly emptied with a series of small cool enemas. The patient should be encouraged to be calm and restful, and to have plenty of fresh air. If fever develops a cold wet-sheet pack or a warm bath should be given. Four or five hours after this, if the symptoms continue to increase, an ice-bag may be applied to the spine over several thicknesses of cold wet cloth for one to two hours at intervals of one to two hours between. The younger the patient the shorter the applications.

On the next day if fever is still present, give another cold wet-sheet pack. If there are any signs of convulsions, however, this should be changed to a hot immersion bath or a hot-blanket pack with a cold towel to the head. In all cases observe care to avoid over-treatment, especially in the case of infants and very young or puny children.

The acute symptoms of this disease usually subside quickly. If fever is present after two or three days of fasting, however, it would be permissible to flavor the water (which should be taken freely) with orange juice. The juice of two to ten oranges a day, depending upon the age of the patient, will be sufficient. Nothing but the orange juice and water should be allowed until the fever is gone.

After this, Milk Diet No. 3 may be used, limiting the quantity according to the age of the patient but allowing as much as desired after the first few days. The milk diet is important and should be used for at least six weeks, as it helps to overcome any tendency to paralysis which may have developed by insuring ample provision of all elements required for normal nutrition. If it is necessary to use pasteurized milk the juice of at least one orange *must* be given daily. The milk should be taken slowly through a soda straw. Enemas should be given until the bowels move naturally.

Infantile
Paralysis,
Diet in

There should be gradually deeper massage treatments of the affected parts every day and preferably twice a day, or Special Manual Treatment 1 to 10 may be given in the morning, a few minutes only at first; and a neutral immersion bath at 98 degrees in the evening. General stimulation of the entire body surface by a wet stiff scrubbing brush should be a daily procedure. Gradually general bodily manipulation may be added to the Special Manual Treatment. As the strength improves, the patient should be instructed to resist some of the movements. As soon as possible active exercise should be adopted, giving special attention to the parts which may have become paralyzed. By this time the only manipulation that will be required will be massage of the affected parts two or three times a day.

Infantile
Paralysis,
Special
Treatments
in

Sun-baths, natural or artificial, should be given daily and the patient should remain out of doors as much as possible. In fact, careful attention must be given to all general health-building measures. Where this is done and treatment is continued persistently, all paralysis should be overcome in the majority of cases. It may require a year or two in some cases to obtain complete results, but any improvement will be worth the effort.

In those cases where this treatment was not used from the beginning, the same measures as are advised for general paralysis should be employed. (See *Paralysis*.)

Inflamma-
tion, Acute

INFLAMMATION, ACUTE.—Increased activity of the parts accompanied by a greater blood supply and proliferation of the cells, and sometimes by the formation of excessive mucus or pus. Inflammation may be general, as in the case of a fever, or local, as when a particular organ or joint is affected or in the case of a boil or an abscess. Inflammation is a protective measure, being the body's reaction to irritation and always indicates the need for extra elimination. In the great majority of cases it is due to a general toxemia produced by wrong habits of living; but it may result from external irritation, either mechanical or chemical, or from infection.

Symptoms. The common symptoms of inflammation are heat and pain in the inflamed parts, together with swelling, redness, disordered function and often general disturbances. There may be chilliness, rising temperature, constipation, dry and furred tongue, headache and general malaise. The location of the inflammation will determine to a great extent the nature of the specific symptoms.

Inflamma-
tion, Acute,
Treatment

Treatment. Most of the many forms of inflammation have special names. All the diseases whose names end in "itis" are inflammations. In case the name of the disease is known, the treatment advised under that heading in these volumes should be followed. If the exact condition is not known the following measures may always be used.

Fasting or a diet of fruit juices and water is always indicated. When the body is trying to obtain extra elimination it is in no condition to be burdened with the digestion and assimilation of food, nor does it need food. This is especially true of general inflammation. In these cases feeding only aggravates the trouble.

The free drinking of water and the use of enemas always should be used along with the fasting. The fast or the partial fast should be continued until the inflammation subsides, after which the appropriate Fast-Breaking Routine should be employed. The diet thereafter will depend upon the general condition, but milk is practically always of the greatest value. The next best diet would be one of fruits, vegetables and milk, preferably a sour milk. Care always should be observed not to overeat.

Inflamma-
tion, Acute,
Hydro-
therapy for

In addition to the special diet, deep breathing of fresh air is particularly important, for this increases the elimination through the lungs. Various hydriatric measures may be used to increase the skin activity. If the inflammation is general and there is fever, cold wet packs should be employed. If the temperature is normal, hot-blanket packs, hot immersion baths, steam or other cabinet sweat baths may be used. If the inflammation is localized, hot Epsom salts compresses may be applied several times a day, especially if there is much pain.

Heat may be applied also by infra-red generator or radiant light

and heat. A local cold pack may then be applied before retiring and allowed to remain all night. Sometimes very cold applications, in some few instances even an ice-bag briefly applied with caution, may be of greater service and be more agreeable than the heat. Local inflammations associated with the formation of excessive mucus or pus may require the use of antiseptics. Salt-water or lemon juice is to be chosen in most cases except for the eyes, in which case salt-water or a boric-acid solution should be used. If available, local applications of sunlight or ultra-violet light are helpful also—excepting in the case of the eyes, though exposure of the eyes to the sun rays momentarily, and cautiously, may prove helpful.

The constitutional treatment always is more important than the local. If one assists the natural eliminative processes by fasting, water drinking, enemas, deep breathing and the use of special baths, the inflammation will soon subside.

INFLUENZA (*Grip; La Grippe*).—An acute eliminative crisis which somewhat resembles a severe cold but is supposed to be due to a specific bacillus. It often occurs in epidemics. Isolated cases occur, however, so that the development of epidemics does not depend merely upon the presence of any germ which may be associated with the symptoms. These symptoms merely indicate the eliminative character of the reaction and show that the fundamental cause is an accumulation of toxins in the body, which can result only from wrong habits of living.

Influenza

Those who live the physical culture life, therefore, need not fear that they will develop the disease in an epidemic and those who take the natural treatment after having been careless and allowed the disease to develop, need not fear a severe illness nor any of the ordinary complications (pneumonia, nephritis, or chronic bronchitis), which so frequently follow improper treatment.

Symptoms. There is an incubation period of two to five days. The symptoms vary according to the type of the disease, of which there are four recognized varieties. These are (1) The fever type; (2) the respiratory type; (3) the nervous type; and (4) the gastrointestinal type. In the first type the onset is sudden. There are severe headache, pain on moving the eyes, pain in the back and in the bones, coated tongue, offensive breath, congested eyes, cough, bronchitis, great general weakness, chills, and fever, which may be high and last for three to five days under rational treatment. Relapses are common.

Influenza,
Symptoms of
Types

In the second type there is severe bronchitis, with large quantities of sputum which may appear purulent in character. There may be a complicating pleurisy, which may run on into empyema or a severe and serious form of bronchopneumonia.

In the third type nervous symptoms are markedly developed, often headache, insomnia, great prostration and even delirium.

In the fourth type, which is not very common, there are abdominal pain and diarrhea and there may be nausea and vomiting. There also may be some jaundice, but no respiratory symptoms.

In influenza the heart may become affected; if so, it generally is serious, with rapid and irregular pulse and a tendency to dilatation. Some epidemics are severe and fatal. Fatal cases are more likely to be those of the second type, the cause of death usually being bronchopneumonia. Cases in any form of the disease may be mild or severe, of short duration or prolonged by complications.

Influenza,
Treatment

Treatment. The treatment of influenza is not a matter of giving drugs to combat the fever, dull the pain and "support" the heart but simply of assisting the body in the cleansing effort it is making. In the beginning influenza resembles a severe cold; so if prompt treatment of the proper kind is taken it may never amount to more than this, for all diseases, especially the acute eliminative crises, are essentially the same. The first thing to do, of course, is to stop all feeding. When no food is taken the body can devote its entire time to elimination. Complete Fast No. 3 should be used, drinking hot or cool water freely and taking full warm, or a series of cool enemas daily. Complete bed rest is advisable when any fever exists. Plenty of fresh air is necessary. It is essential that the patient be kept warm.

On the first day a full hot immersion bath of 98 degrees gradually increased to 105 degrees F. may be taken for fifteen minutes to an hour to induce free perspiration. Several glasses of hot water should be drunk while in this bath. A cold towel should be kept on the head. On the following day the immersion bath may be repeated if fever continues, or a cold wet-sheet pack may be given for one to two hours. Either treatment may be repeated each day until the fever is gone, though if the patient seems weak a cold abdominal pack may be given instead. If the symptoms are most marked in the chest, a cold chest pack instead of the abdominal pack may be given. If there is much pain in the back, hot spinal compresses may be administered for thirty minutes sometime during the day, but not within four or five hours of giving the pack. Warm or hot abdominal packs may be used for chilly or anemic patients. Feeble patients should have no water treatments except enemas.

Influenza,
Fast and
Diet in

The fast should be continued until a day after the fever is gone, though in the case of young children it would be permissible to add to the drinking water unsweetened grapefruit or orange juice as desired after a day or two of the complete fast. In any case, it is best that the fast be broken with orange or grapefruit

juice for a day or two, followed by one day on the entire fruit, that is, the juice and the pulp. After this Milk Diet No. 3 should be used until there is full recuperation. Grapefruit may be used instead of or in addition to oranges while on the milk diet. The packs may be discontinued after the fever is gone, but the hot spinal compresses may be continued. Special Manual Treatments 11 to 16 should be included after starting on the milk diet. At this time also a general vitality-building routine suited to the strength of the patient should be adopted and changed to a more strenuous one as the strength increases. When this plan is carefully followed there will be no relapse or complication and the patient will be the better for having had the extra elimination. Bedside sunlight therapy has proved useful in this disorder.

INOCULATION.—See *Vaccination*, page 3792.

INSANITY, OR MENTAL DISEASES.—The brain cells, like other cells of the body, are made and remade from the blood. Therefore the health of the blood determines the normality of the mental functions. The brain is so wonderfully built, its structure so delicate and its functions so important, that Nature protects it by a strong, bony encasement which we know as the skull. Inside is a sort of cushion that absorbs shocks which otherwise would reach the brain direct when the head is struck. The structural ingenuity that Nature has lavished on the brain is, if anything, in excess of that which she has given to any other human organ. Man is what he is by reason of his brain, the highly perfected state of which distinguishes him from the lower animals.

Insanity—
Mental
Diseases

Such are our habits and so many our excesses that the brain is susceptible to numbers of disorders that include the most distressing maladies which afflict humanity. Scientists have spent their lifetimes studying abnormal mentalities, yet in a way the futility of their work so far is made manifest by the progressive increase of insanity with advancing civilization.

Unfortunately, the treatment and environment of a hospital for the insane are not often such as induce a return to sanity. Statistics dealing with those subjects will prove the truth of the assertion. But if an intelligent understanding of the principles of hygiene and of the natural laws of health are applied to a patient, it frequently will induce recovery, at least in part. Physical culture has a wider field of action than its name implies, inasmuch as it is capable of assuaging the ills which afflict the brain as well as the body. Therefore, that which follows will be of special interest in this connection.

Varieties and Symptoms. *Insanity* is a term applied to various derangements or abnormal conditions of the mind, with or without loss of volition and consciousness. Its chief causes are defective

Insanity—
Mental
Diseases,
Varieties and
Symptoms

mental development (sometimes due to inherited physical or mental weakness), disease, including that due to improper living and natural decay. Symptoms of many kinds characterize its various forms, including change of character and habits, moroseness, confusion of ideas, uncalled-for elation, melancholy, mania, delusions and hallucinations. Melancholia, mania, delusional insanity and dementia are the four principal types of the affection, to which may be added the results of arrested brain development which include idiocy, imbecility or cretinism. The great majority of mental troubles, however, may be included in the four groups just mentioned, each of these again having several subdivisions. The greater number of cases of insanity occur between the ages of twenty-five and forty-five.

Insanity arises as a result of certain brain diseases or conditions which cause an invalidation of mental integrity. It is therefore not really a disease of itself, but is a symptom caused by morbid conditions which involve the organ of the mind (Spitzka).

Insanity,
Delusional
(Paranoia)

Delusional insanity (Paranoia), as a rule, manifests itself by false judgment of objective things, such judgment being the reverse of a sane estimate of the object or idea. There is systematized and unsystematized delusional insanity, the former occurring in the chronically insane and therefore the most serious form of the malady. One of its characteristic symptoms is the fixed delusion the patient has that he is being subjected to persecution. Then, too, there are periods of self-exaltation and systematized delusions. The sufferer is prone to believe himself to be some divine, or some well known historical character, such as Napoleon Bonaparte, Queen Elizabeth, etc.

There usually is a hereditary tendency to insanity in cases of this disease. Worry, alcoholism, dissipation, or malnutrition may be a further predisposing cause to paranoia.

Insanity—
Mental
Diseases,
Dementia

Dementia is a form of insanity distinguished chiefly by an imperfect conception of ideas and actions, impaired perception and not infrequently a partial loss of self-control and self-respect. It often forms the final stage in other phases of insanity, such as are produced by senility, organic troubles or alcoholism.

Insanity—
Mental
Diseases,
Dementia
Præcox

Dementia præcox is a form of insanity characterized by progressive mental weakness tending ultimately to dementia and occurring usually in young adults. *Senile dementia* is a progressive mental deterioration with loss of memory, especially for recent happenings, and with occasional outbursts of great mental excitement. It occurs in the aged or prematurely aged—the dissipated.

Insanity—
Mental
Diseases,
Melancholia

Melancholia is marked by extreme and persistent depression of spirits, apathy and indifference to one's surroundings and by mental sluggishness. As it advances it may be associated with

illusions, hallucinations and suicidal tendencies, finally ending in dementia or mania, or terminating in death from exhaustion or suicide. Many cases recover. Hypochondria is one form.

Mania is marked by great exaggeration of nervous action. It sometimes follows an attack of melancholia or it may develop with little or no warning. The patient has a variety of moods, is the victim of hallucinations and illusions and often exhibits destructive tendencies. The character changes, there is much insomnia and rapid emaciation takes place. The disease is most common among young adults. Heredity, shocks to mind or body, and alcohol are among the predisposing causes. Not infrequently acute mania appears following great fatigue or exhaustion as a result of overwork or of becoming overheated while at strenuous labor. *Puerperal mania* or insanity is a form of mental disease which occurs in women during pregnancy or immediately after childbirth. It may be of a mild character and confusional or it may develop to a maniacal condition. During an attack of puerperal mania women have done away with their offspring, or killed themselves by setting fire to their beds or their homes, or otherwise.

Insanity—
Mental
Diseases,
Mania

Imbecility is a defective mental state as distinguished from mental impairment. It may be congenital, it may result from injury at birth or it may be acquired by continual mental disturbance in infancy. Also it may result from inflammation of or injury to the brain. *Idiocy* is the term applied to the extreme form.

Insanity—
Mental
Diseases,
Imbecility

Treatment. In Section 5 of Volume VII, the reader will find detailed instructions for the emergency treatment of mania or any other sudden and violent attack of insanity. It is desirable to accelerate the activity of the normal functions of the body so as, by relieving the cerebral congestion, to quiet the nervous system. The best palliative treatment for this purpose is complete immersion in a full hot bath starting with 98 degrees, gradually increasing to 105 or 108 degrees, together with simultaneous cold applications to the head and the back of the neck.

Insanity—
Mental
Diseases,
Treatment of

In violent cases ice-bags may be applied to the head and the back of the neck, with a wet towel intervening between bag and skin. The hot bath should last anywhere from one to two or three hours, although the temperature of the water may be reduced gradually to about 98 degrees after the first hour before removing the patient. Sometimes it is necessary to strap the patient, when violent, in the bath. If the full hot bath is not available a hot foot-bath with ice-packs to the head and the upper spine will be found advantageous.

Fresh air is highly important. Whenever possible give prolonged air baths. It is best to place the patient in the open air in order that he may breathe the greatest possible amount of

Insanity—
Mental
Diseases,
Baths in

oxygen. Exposure of the surface of the body has a marked effect upon the nerves in these cases, so the patient always should wear as little clothing as possible when not actually taking complete air-baths. Sun-baths likewise are of great advantage. Hot abdominal packs are recommended, following by intervals of several hours the hot bath mentioned. A drink of hot water will be helpful if the patient can be induced to cooperate to that extent; or in fact he should be induced to drink as much hot water as he can as soon as possible. Following the attack, drinking large quantities of cold water is recommended. Cool enemas and colonic irrigations are especially helpful, as much brain irritation is due to toxins absorbed from the bowels.

The patient will recuperate far more rapidly and may even gain strength if he will fast or subsist on acid fruits for at least a few days. Constitutional treatment is absolutely necessary in order to build up vitality and the stability and health of the nervous system. The general treatment in an attack of mania is the same as for insanity in general, as follows:

Many diseases of the brain are due to physiological defects. It is true that in some instances such diseases are hereditary, so but little benefit can be expected beyond that which will follow physical improvement. But where the symptoms of the disease appear after one is partly or fully grown, there usually are possibilities of a cure being effected through vitality-building processes which can be secured by our methods. This statement is not mere theory: it is simply the conclusion formed from experience with various patients suffering from mental derangements.

Insanity—
Mental
Diseases,
Institutional
Treatment

As intimated, the institutions for the cure of the insane usually are so conducted that the mental maladies they are supposed to treat often are aggravated. Those in authority apparently fail to realize that derangements of the mind often are due to functional causes or physiological defects, and that in many cases such causes or defects can be removed by vitality-building processes. To be sure, many institutions have adopted exercises and games such as are associated with physical culture methods, but these are but a part of the remedial measures included under natural methods of treatment. Therefore, if one is endeavoring to treat a mental disease he must employ, first of all, measures for building up the highest possible degree of physical vigor in the patient.

The more nearly one can make such a patient an athlete, the better the chances will be for bringing about his mental recovery. The building of an athletic body requires long, persistent and hard training. It is not a matter of a few exercises or treatments, taken for a few days: it requires efforts continued day after day, month after month and in some cases year after year, though, as

a rule, after a few months' treatment one will notice a decided change for the better in the mental condition of the patient.

If the digestive organism of the patient appears to be in good condition, if there is no coated tongue, if the breath is sweet, and if there is no constipation, then a fast is not especially recommended. If there is the slightest indication of trouble in the alimentary canal, a fast of three days or at least two is strongly recommended. Some cases have been cured by complete Fast No. 2, continued to a "finish" fast. In ordinary cases, however, the patient should fast for only two or three days, Limited Diet No. 1, 5 or 7 or fresh fruits and vegetable broth to be followed for seven to ten days, after which Milk and Fruit Diet No. 1 or 3 may be used as the appetite dictates. Following, Combination Milk Diet No. 13 or 17, or perhaps No. 2 may be used as the appetite suggests. Activity of the bowels is imperative, so all necessary natural measures should be adopted if the patient is constipated. Cool enemas and colonic irrigations are helpful.

Remember that these diets are not necessarily an essential part of the treatment. They are simply suggestions of foods easily digested and that will thoroughly nourish the body. Almost any diet which can be digested without difficulty and which does not tempt the patient to overeat may be used, for the diet problem is only one part of the difficulty associated with the cure of this disease; but the diet always should contain an abundance of green vegetables and fresh fruits, and preferably milk.

Games and sports that will take the patient out of doors and will require considerable physical activity are to be insisted on, for most cases. Exercises of the gymnasium type, that is, calisthenics, apparatus work, etc., are especially commended, provided that the patient is strong enough to take them. In the beginning, however, the patient should confine his efforts to Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 to be taken in the morning, and Hip and Spinal Manipulations 27 to 32 to be taken in the afternoon. Walking should be done every day and should be continued until the patient is somewhat fatigued. A short run is advised, and if the distance is increased a little each day until the patient can run a mile or more without stopping, much benefit will result therefrom. Those cases that result from physical exhaustion must take up exercise gradually.

A daily water treatment which can be taken as a neutral or warm bath, a shower bath or a swim will prove beneficial.

It is well to keep the patient occupied a good part of the time. Exercises or light duties which, to a certain extent, give him personal responsibility are to be preferred. For instance, hold him responsible for taking a certain number of exercises of a certain

Insanity—
Mental
Diseases,
Diet in

character, or perhaps for doing a share of gardening. Encourage competitive games of all kinds, such as running, jumping, wrestling, boxing, baseball, tennis, etc. (See *Mental and Psychic Healing*, under *Miscellaneous Treatments and Health Factors*, Vol. VI.)

Special Manual Treatments 11 to 16 are especially valuable as a direct stimulant to the vital organism. Hot spinal packs always will be effective for stimulating the nervous system, though whenever there is great mental excitement, cold applications to the back of the neck or the upper spine and to the head will have a quieting effect.

For the special or immediate treatment of delirium, see *Delirium*, also *Delirium tremens*.

Insanity,
Treatment
of Types

Paranoia can be treated as described above, and encouraging results may be looked for.

For the treatment of melancholia attention is called to the instructions given under *Hypochondria*.

In cases of mental defect, physical culture treatment that exercises all parts of the body should be employed when possible. Both lack of regular duties with resultant bad conditions, and over-activity with inadequate rest, particularly the latter, have been responsible for insanity. The treatment to employ must aim to overcome the influence of the previous state of activity or inactivity; more rest and recreation in some, and increased activity in others.

Select a vitality-building routine and follow it out day by day. All exercises that bring the spine into active use may be recommended. In other words, the idea to keep in mind in the treatment of insanity is to use every effort to develop the bodily powers of the patient. In no case except as mentioned above will this method be productive of harm. In most cases it will assist in bringing about a much desired improvement. Infected teeth and other topical causes should be looked for and treated.

Imbecility,
Treatment

Where imbecility appears in early childhood, indicating that it is due to defects which existed at birth, it is incurable. Where the disease develops after the ordinary intelligence of childhood has been manifested there often is a possibility of improvement. Where the malady has continued for a considerable time the possibility of recovery is much lessened. If treatment is begun immediately after the first signs of imbecility are noticed one is justified in hoping for changes for the better. Where the condition apparently has existed from birth, the general health of the patient often will determine either the permanent impairment or the improvement of the mental faculties.

Even in the most severe cases attention to health-building will bring encouraging results. The disease sometimes is caused by

a functional defect, formation of a blood clot, or a growth of abnormal tissue. A long fast often remedies the first of these or helps to absorb the latter. As the cause of the defect is remedied, the associated symptoms disappear. Therefore, if the defects are of recent origin and the vitality of the patient seems to be fairly good, long fasting, such as the "finish" fast of Complete Fast No. 2, would be a satisfactory method of quickly determining whether or not the ailment is curable.

Imbecility,
Fasting in

One need not have the slightest fear of a long fast of this nature, as no harm will come from it. If it is thought desirable to break the patient's fast before a definite appetite returns, the use of grape or orange juice, such as is advised in the fast-breaking routine for extended fasts, usually will bring back the appetite, slowly but surely. Where the case is chronic, however, and if for any reason the fasting process cannot be used, as often is the case in connection with children, a limited diet, such as is recommended in Limited Diets Nos. 4, 5 and 7, might be used for a considerable period, switching the diets now and then for the sake of variety.

A vitality-building routine should be selected, one adapted to the strength of the patient and followed out carefully. Where the patient is especially weak, Special Manual Treatments 1 to 10 may be used, or, if stronger, 11 to 16 would be more applicable. Where the patient is able to be up and around and is capable of going through vigorous exercises Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18, and Hip and Spine Manipulations 27 to 32 should be recommended. For instance, the former might be taken in the morning on arising and the latter in the afternoon or before retiring. Cold bathing also is advisable provided the patient recuperates satisfactorily and enjoys it.

INSECT BITES.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

INSENSIBILITY.—(Loss of sensibility from any cause). See *Catalepsy, Coma, Convulsions, Epilepsy, Fainting, and Trance*; also *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

Insensibility

INSOMNIA.—See *Sleeplessness*.

INTERMITTENT FEVER.—See *Malaria*.

INTERTRIGO.—Eruption or soreness of the skin from friction of adjacent parts. (See *Skin, Diseases of*, also *Chapped Skin*.)

Intertrigo

INTESTINAL WORMS.—Of these the tape-worm, the round-worm, the thread-worm and the hook-worm are most important. The *tape-worm*, as the name suggests, is flat. It is white or yellowish white, and composed of a varying number of segments, each somewhat more than a quarter inch long. There is a small head, about the size of the head of a pin, which, in some forms of tape-worm, is provided with hooklets by means of which it attaches

Intestinal
Worms

itself to the inner surface of the small intestine. Other forms of tape-worm have no hooklets. The segments near the head are small, but those farther along the body of the worm are larger. The adult worm lives in the small intestine.

Tape-worms are of three kinds—one derived from the cow, another from the pig and the third from fish. They cause a ravenous appetite, malnutrition, and anemic tendency, diarrhea and some abdominal pain, itching of the nose or of the anus, or both and sometimes convulsions. The presence of the parasite can be verified by the appearance of a segment or a section of the worm in the stools, the length of which section may vary from one to several inches. The worm grows to a length of six to twenty or more feet. It is the largest of all parasites that infest the human organism.

The *round-worm* is another common intestinal parasite, especially in children. The adult worm is small, varying from six to twelve inches in length. In appearance it resembles an earth-worm. A considerable number may be present in the body at the same time.

The source of infection with the round-worm is said to be from infected drinking-water and from vegetables washed in infected water and eaten raw. The symptoms are nervousness and restlessness, the irritation at times becoming convulsive in nature, often disturbed digestion, picking of the nose, and grinding of the teeth. Unless present in large numbers these worms may cause but few symptoms.

The *thread-worm* or *pin-worm* is from a quarter to half an inch in length. It inhabits the colon or lower bowel and migrates to the anus, where it causes intense itching. The thread-worm also is said to enter the body through water-infected vegetables. Thread-worms are found mainly in children.

Hook-worm is described under *Hook-worm Disease*.

Treatment. In the treatment of tape-worm a long fast is helpful. This fast may continue for two to ten or even twenty days. In children three or four days should be the maximum duration. Activity of the bowels should be promoted by the use of saline or oil laxatives or by infusion of garlic as an enema. If one does not care to try a long fast he may fast for two or three days, making a meal of macerated pumpkin seeds on the third and the fourth day. Take from four to six ounces of these seeds and drink as much water with them as you crave—in fact, it would be better to drink a large quantity of water on the days that one uses the seeds. The water may be hot or cold in accordance with the desires of the patient. On the fifth day begin Fruit Diet No. 3, which should be continued for two to three days, after which any

of the Salad Diets may be used with good results. Fats of all kinds should be avoided. Color therapy may be used if available.

Every available means for adding to the vital and functional vigor is of value; more, however, for overcoming the effects of long habitation of the worms than in ridding oneself of the parasites. Long walks daily, to the extent of one's strength, would be advantageous. Hot and cold sitz-baths morning and evening also are of value. Cold sitz-baths are particularly beneficial provided there is a feeling of warmth thereafter. The Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 also should prove of material help if practiced daily.

The same treatment may be used in the case of the round-worm or thread-worm, though the treatment need not be quite so severe. As a rule a short fast followed by fruit diet for three or four days will entirely rid the intestines of these last named parasites. In fact, by merely adopting the fruit diet for a few days a permanent cure often can be secured. It would be safer, however, to fast one or two days prior to the inauguration of such diet, for this would insure the results being more speedy and certain.

In treatment of thread-worm frequent washing of the anal region with soap and warm water or an antiseptic lotion will relieve the itching. An infusion of garlic or of quassia wood shavings used as an enema once or twice will quickly kill the worms present in the lower bowel.

Children being the chief sufferers from these parasites, especially round-worm and thread-worm, a few words regarding the modified treatment required by the little ones will be in order. The diet of the child must be carefully watched to prevent, if possible, the worms from obtaining a lodgment in the intestinal tract. A meat diet is one of the chief causes of their presence and a rich diet of any kind favors their propagation. Gluttony and, indeed, any food or habit that brings about an abnormal condition in the intestinal tract is likely to breed worms in the case of the juvenile, once there is infection. In such instances the stomach and the intestines might be compared to a yeast bag. The contents are in a state of continuous fermentation; so in order to eliminate the conditions favorable to the propagation of the pests only that amount of food absolutely needed must be taken. Whenever the keen edge of the appetite has been apparently satisfied, insist that the child immediately stop eating.

In many cases, if this suggestion is followed, worms will disappear. When this does not bring desired results, however, more drastic measures are necessary, including the treatment just described. If it is considered that a fast of two or three days is too strenuous for the child, then put it on an acid fruit diet, allowing it

Intestinal
Worms in
Children,
Treatment

Intestinal
Worms,
Diet for

only fruits of this kind, and no sweet fruits. Oranges and grapefruit, apples, pears, peaches, strawberries, blackberries, etc., may be used. Dried juicy fruits may be used, but without sugar or sweets of any kind. As a rule, one week on an acid-fruit diet, giving no other nourishment of any kind, not even milk, will effect a definite cure. After the worms have disappeared put the child on a diet of acid and sweet fruits and milk and a great improvement in his physical appearance will soon be observed.

It also is important that the child be encouraged to be out of doors as much as practicable. All sorts of outdoor games are beneficial. In fact the child should be encouraged to keep active much of the time from daylight till dark, except for its usual afternoon nap if it is in the habit of having this.

Intestinal
Diseases

INTESTINES, DISEASES OF.—See also *Constipation, Colic, Cholera, Appendicitis, Dysentery* and *Intestinal Worms*.

In addition to the above-mentioned disorders, one of the most common of intestinal diseases is that known as *Enteritis* or *Intestinal Catarrh*, of which there are two forms—acute and chronic. The *acute* phase of the disease is discussed under the heading *Enteritis*, which see.

Intestines,
Chronic
Catarrh of

Catarrh, Chronic Intestinal, may result from any inflammatory attack of the abdominal tract. Often it is characterized by intermittent attacks of acute catarrh followed by periods of constipation. The change to the chronic from the acute phase may be so imperceptible as to escape notice. The chief symptom of the ailment is the passage of undigested food, coupled with sudden and frequent desire to evacuate the bowels. A moderate degree of intestinal catarrh may exist for years without producing symptoms of a serious nature, in which case, though the stools are extremely soft and watery, undigested particles of food are few in number. But when much food leaves the body in the same form in which it is swallowed, nutrition becomes impaired to such a degree that emaciation and weakness rapidly develop.

Intestinal
Hemorrhage

Hemorrhage, Intestinal, may be due to bleeding from any part of the alimentary canal between the stomach and the anus. Its significance varies with its location and the accompanying symptoms. When the blood comes from the colon it retains some of its red characteristics and is only slightly mixed with the rejected food. But when the blood is thoroughly mixed with the stools and the latter are black and tarry in appearance it may be inferred that the hemorrhage arises in the small intestine or in the stomach. Intestinal hemorrhage derived from the upper part of the alimentary tract may be caused by ulcerative diseases to which the stomach and small intestines are liable. The most frequent cause of bleeding from the alimentary canal is hemorrhoids (which see).

A catarrhal or ulcerated condition of the mucous membrane of the rectum also is liable to produce bleeding, as well as are cancerous and tumorous growths within this organ. Except in the case of piles, the symptoms of which are unmistakable, and of fissure, intestinal bleeding of any kind is usually considered a grave token.

Intussusception and *Intestinal Obstruction* are conditions produced by mechanical disturbances in the intestine. The former usually is brought about by the twisting of the folds of the small bowel, or by strangulation or occlusion of the bowel by adhesions, by strictures in the walls of the intestines, by the pressure of tumors outside of the intestine and by impacted fecal matter.

Intestinal
Obstruction
and Intus-
susception

Intussusception is the expansion of one fold into which a preceding fold of smaller dimensions may sink (a sort of telescoping process), thus entirely obstructing the passage of the feces. The signs which indicate such an obstruction are swelling of the abdomen (the skin of which becomes stretched as tight as a drum) and vomiting of fecal matter—a much-to-be-dreaded symptom. Sometimes a swelling in the abdomen can be felt. In intestinal obstruction there will be complete constipation with absence of gas passed via the rectum; in intussusception there usually is at first bloody diarrhea, but no passage of gas.

Polypus, Intestinal, is a benign growth usually situated in the small intestine or the rectum. Polypi are harmless excrescences about the size of a finger, usually attached to the inner surface of the intestine by a thin pedicle or stem. Unless they grow to the degree that they prevent the passage of food or feces, they do not materially affect the health. More or less severe hemorrhage is a symptom present with these growths.

Intestinal
Polypus

Tumors, Intestinal. Intestinal growths almost always are of a cancerous nature. They generally appear within the rectum or large bowel; rarely in the small intestine. The symptoms which distinguish a malignant growth are abdominal pain and colic, rectal bleeding and diarrhea. When the hand is applied over the seat of the pain the tumor often becomes palpable to the touch. The growth may extend until it becomes the size of a pumpkin. When this leads to intestinal stoppage vomiting of the feces is likely to follow.

Intestinal
Tumors

Tuberculosis, Intestinal, usually is an accompaniment of tuberculosis of the lungs in its later stages, though it sometimes occurs as a primary condition, especially in children. In addition to the usual signs of tuberculosis, a characteristic symptom of this dread malady is severe and protracted diarrhea, the dejecta being foul-smelling, thin, watery fluids. This form of tuberculosis usually is fatal within a few months.

Intestinal
Tuberculosis

Treatment. In treating the various diseases of the intestinal tract it is most important to accelerate elimination and the activity of the digestive processes. Therefore, one will find much similarity in the instructions given for the treatment of both stomach and intestinal affections.

Acute intestinal catarrh. See *Enteritis*.

Treatment of
Intestinal
Catarrh,
Chronic,

The treatment of *chronic intestinal catarrh* is entirely a constitutional process, depending upon the increase of the vital vigor and the general improvement in the digestive processes, both of which insure a pure quality of blood. In all cases the cure of this disease can be materially facilitated by a fast of five to fifteen days, during which time warm enemas and properly given colonic irrigations containing some mild antiseptic, such as lemon juice, are needed and must be taken in order to accomplish the thorough cleansing of the colon. Later these may be used when necessary, if constipation is present; but the patient should not depend upon them but maintain bowel activity through exercise and diet.

If the patient is below normal weight the fast should not be continued beyond five days. If above normal weight and it does not seem to reduce the strength then it may be continued to fifteen days, or even longer in some cases. The fast-breaking routine adapted to the length of the fast should follow. In practically every instance the exclusive Milk Diet No. 1 may then be used.

In nearly all catarrhal troubles of this nature there exists considerable assimilative disturbance and as a rule the weight is considerably below normal. Almost immediately after the beginning of the exclusive milk diet there will be noted a marked improvement in the powers of assimilation, with a corresponding increase in weight. Patients often gain one-half to one pound each day for a considerable period after beginning this diet. Nausea is likely to manifest itself at the inauguration of this diet, but the free use of lemons or lemon juice usually will bring relief. It is a good plan to take a half or a whole lemon immediately upon arising, especially if the tongue is coated and there is an unpleasant taste in the mouth—a frequent symptom in the diseases under discussion.

As a means of adding to the general vital vigor, Self-Applied Exercise Movements 7 to 15 may be used to considerable advantage. As strength is gained, Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be substituted, using them in the morning and Hip and Spinal Manipulations 27 to 32 in the afternoon or at night before retiring.

The neutral bath may be taken daily while the milk diet is being taken, though it is better to lower the bath temperature from day to day until fully cold baths are taken. In the morning take exercises before beginning the diet. Long walks each day, con-

tinued until a slight fatigue is experienced, will be of material advantage. It also would be well to look over the vitality-building routines and select therefrom additions to the treatment.

After resuming the use of ordinary foods a cold sitz-bath may follow the morning exercises to invigorate the digestive tract.

In the treatment of *intestinal hemorrhages*, it is necessary that the patient remain as quiet as possible. If the hemorrhage continues for so long a period as to reduce the strength of the patient it is advisable to use a cold abdominal pack. This nearly always will be effective in stopping the bleeding. Sometimes it is well to elevate the hips of the patient as he lies upon his back, or to elevate the foot of the bed. The patient must be on complete fast until the hemorrhage is stopped. Then the diet should be mild vegetable broth and unsweetened, diluted grape juice.

Treatment of
Intestinal
Hemorrhages

Obstruction, Intestinal, represents a condition of considerable gravity. In many cases relief can be secured by the use of the full enema taken in the positions described in Volume VI. It is advisable, however, in treating this trouble first to take a moderate enema and a short time after its expulsion take one to full capacity, being sure meanwhile to maintain the proper position to insure the free passage of the water if possible, throughout the length of the colon—the knee-chest position usually being preferred. Water as hot as can be borne should be used in these enemas unless there is considerable fever, when it should be cool. Intussusception may sometimes be removed by an oil enema, but operation is needed in some cases to save life.

Treatment of
Intestinal
Obstruction

After the expulsion of the second enema the patient should rest. Then deep abdominal massage following the circular course of the colon may be given. This massage should be moderate pressing of the ends of the fingers of both hands into the abdominal region, with a view, of course, of dislodging any obstruction which may be interfering with the action of the bowels. Twist the body in various positions to change pressure through gravity. Raise the patient's body until the weight rests on the shoulders. The reversal of gravity pressure, twisting hip around in one direction, then the other, is worth trying as a last resort in serious cases.

The free drinking of hot water may be beneficial in some cases and in other cases it might be of no advantage. Where there is a great deal of vomiting such drinking is especially prescribed, for if it does not accomplish anything beyond a thorough cleansing of the stomach it is of considerable value. Hot packs often will relieve distress that may be felt in the abdominal region.

It need hardly be said that a complete fast should be adhered to while symptoms of this malady continue—for several days. The rectal feeding recommended by physicians in cases where

the symptoms continue for a long time is of highly questionable benefit.

Where these suggestions have been faithfully followed and the patient does not seem to improve, an operation may be found necessary. This operation consists of opening the abdomen and dislodging the obstruction by manual or mechanical appliances.

As a rule if the enema is used with frequency and the patient fasts, such changes in the position and contents of the alimentary canal will ensue that the obstruction, whatever its nature, will disappear. These measures will not be effective for obstruction due to tumor or strangulated hernia. Treatment of these disorders follows. (See *Rupture*.)

Treatment of
Intestinal
Tumors

The treatment of *intestinal tumors*, whether malignant or otherwise, to a large extent is similar to the treatment just described. Fasting for a long period will be of much advantage, as growths of all kinds frequently tend to shrink through absorption during a fast. If an appropriate routine follows, the gain thus made may be permanent. A long fast, using Complete Fast No. 2, usually is preferable; but where the vitality is comparatively weak a series of short fasts, such as is recommended in Alternate Fast No. 5, is to be preferred. While operation cannot cure, it often prolongs life to some extent and may be necessary in this condition.

Treatment of
Intestinal
Tuberculosis

Tuberculosis, Intestinal, when accompanied by tuberculosis of the lungs, must be treated in the same manner as ordinary tuberculosis. In a disease of this kind the fasting process, however, must be used with the greatest of care. The patients are nearly always emaciated, hence a fast of one or two days represents the limit of safety in such cases. A milk diet in many instances aggravates the symptoms. Cereal Broth Diets, Fruit Diets, such as No. 2 or 7, Salad Diets, particularly No. 6, or a Sour Milk Diet may agree better than the regular milk diet. Exposure of the abdomen to ultra-violet rays, as well as general body irradiations may be of much value. Ultra-violet light applications are of great benefit in intestinal tuberculosis, often producing astonishing, rapid healing results. See also *Tuberculosis*.

INTOXICATION.—See *Alcoholism*.

Intussuscep-
tion

INTUSSUSCEPTION.—A peculiar form of intestinal obstruction in which a part of the intestine telescopes into another part. See *Intestines, Diseases of*.

Iodism

IODISM.—A condition arising from the overuse of iodine or iodine-compounds, or from small amounts by those especially susceptible, with symptoms resembling a common cold, inflammation of respiratory passages, red eyelids, etc. Constitutional treatment as for Colds, Lead Poisoning, or other chronic poisoning.

IRITIS—Inflammation of the iris. See *Eye, Diseases of*.

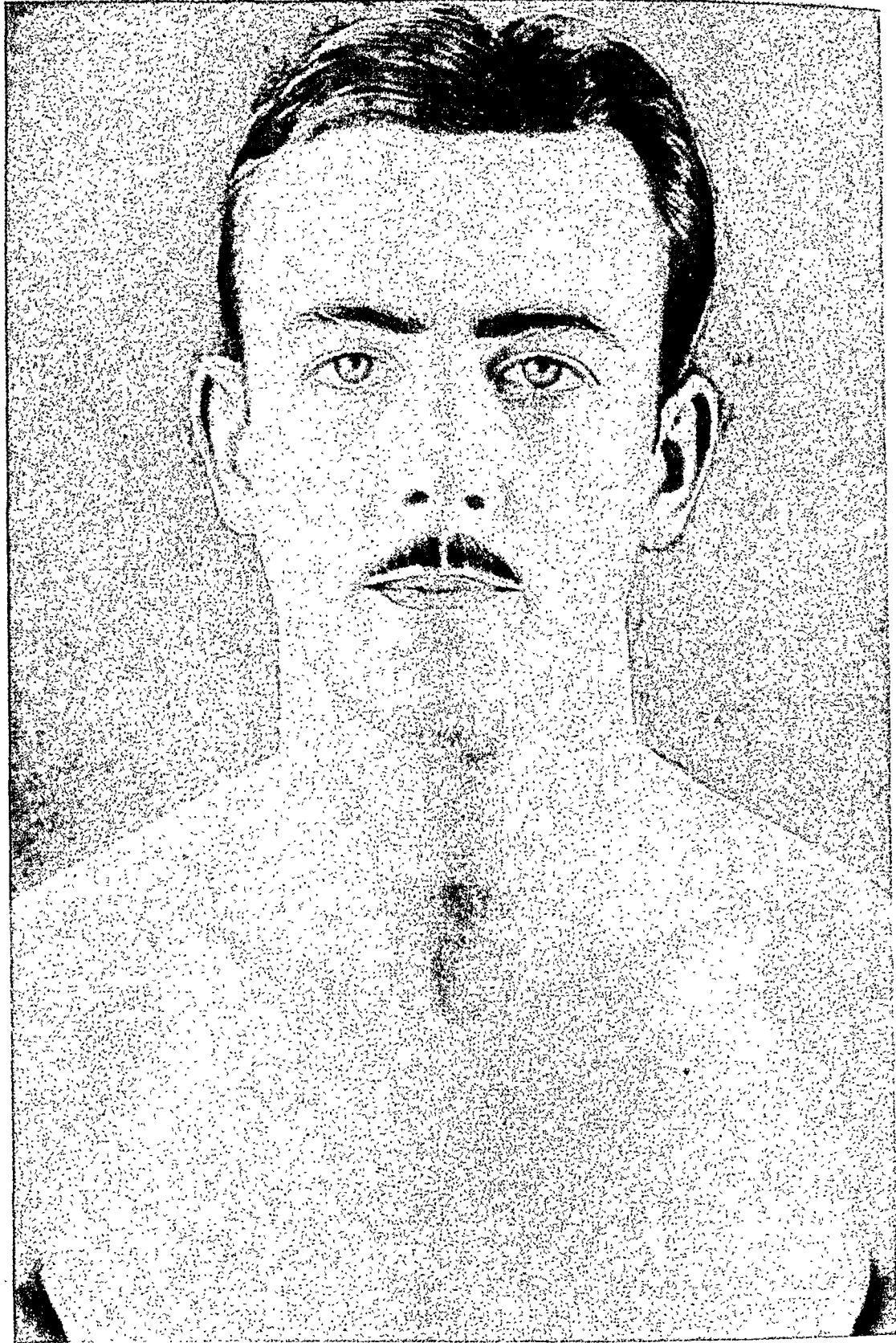


PLATE 104. In jaundice the whites of the eyes first take on a yellowish tinge and this color (sometimes growing much darker) then spreads over the entire body.

ITCH (*Scabies*).—A contagious skin disease caused by the presence of a very minute parasite which burrows beneath the skin and deposits its eggs. It appears principally upon any surface covered by soft skin, such as navel, genital organs, armpits or between fingers and toes, but if neglected may cover most of the body. Itch

The presence of this parasite is made known by an intense itching of the parts affected. Careful examination will disclose thin white lines—the routes through which the pest burrows. At the end of these lines small yellow pimples appear, where the eggs are deposited.

The itching is intense and persistent, most pronounced when in a warm bath or a warm bed or when otherwise very warm. It is allayed by a cold bath or exposure to cold air. The irritation and consequent scratching may result in the formation of ulcers and scabs.

Treatment. Scrupulous cleanliness coupled with the application of some metallic or corrosive ointment quickly eradicates the disease. A paste of sulphur and vaseline or olive oil will kill the parasite. It is best to apply the paste three nights in succession, taking no bath during this time and preferably using the same underwear during this period. Then take a hot soap bath and change personal and bed linen. Repeat this procedure if necessary, though it rarely will be required. General care of the health also is of advantage. Follow a general constitutional treatment, such as outlined under *Skin Diseases*. Itch,
Treatment

ITCHING PILES.—See *Hemorrhoids*.

IVY POISONING.—See *Poisons*; also *Dermatitis* (Vol. VII).

JAUNDICE OR YELLOW JAUNDICE (*Icterus*).—A symptom of an aggravated form of liver disturbance, is characterized by the yellow hue of the skin and the whites of the eyes. The condition is due to the clogging of the bile-ducts, causing the bile to be absorbed by the blood instead of passing into the small intestine. The bile-pigment in the skin may be so pronounced as to give it almost a brown or a bronze shade and the whites of the eyes may be stained a deep yellow or yellowish green, even a deep green.

This obstruction of the bile-ducts may be caused by gallstones, parasites or worms, stricture, inflammatory swelling of the ducts, pressure of tumors, etc.; it may accompany various liver diseases, malaria, yellow fever, typhoid fever, pneumonia, and other acute or chronic diseases. The fundamental cause of the various conditions leading up to the development of jaundice is wrong habits of living, which permit the development of a well-marked toxemia.

In addition to this symptom, from which the disease derives its name, other signs are much belching, nausea, vomiting, vertigo, headache, an offensive tongue, dry and parched lips, itching of

Jaundice—
Yellow
Jaundice

Jaundice,
General
Symptoms

the skin, depression or irritability, slow pulse, constipation, dry, clay-colored, offensive stools and bile-stained urine. Jaundice often is present in diseases of the heart and in infectious ailments. Or it may appear in a simple form uncomplicated with other maladies. In the last case it generally is due to inflammation of the bile-duct, with inflammatory catarrh of the small intestine.

As a rule the symptoms of the disease in its simple form disappear after a few days. They may persist, however, for months. In this case some other and more serious trouble is the cause.

Jaundice,
Treatment

Treatment. The treatment of this condition differs materially according as it manifests itself in the acute or the chronic form. The treatment of the chronic form depends upon blood-purifying and vitality-building processes, while that of the acute form consists of arousing to the greatest possible degree of activity the blood-purifying organs.

Where the jaundice accompanies a particular disease or where it is due to a definite obstruction, such as gallstones or tumor, the chief treatment should be directed towards the cause of the condition. When this is relieved, the jaundice will disappear; but until it is relieved no special treatment for it will be effective. Treatment for simple catarrhal jaundice follows:

Jaundice,
Diet in

As soon as symptoms appear the diet should be limited to nothing but orange juice and copious quantities of hot water flavored with lemon juice. Six or more oranges a day should be eaten. Grapefruit juice in similar amounts may be taken if preferred. If there is much fever it would be well to omit the oranges or grapefruit juice for two or three days. It is especially important to drink plenty of water at the beginning of an attack and when there is much vomiting. This will cleanse the stomach and the upper intestines. A full warm enema should be given to cleanse the colon. Two or three hours after the enema a hot abdominal pack should be given, to remain in place for thirty to sixty minutes. The patient should then be allowed to rest in a well ventilated room and, if at all possible, he should sleep.

If the symptoms continue after the first day, the same treatment should be given daily until the symptoms subside. In addition, abdominal massage may be administered after the abdominal packs. If much fever develops the packs should be made cold. Hot spinal packs will be of value, also. They may be applied daily for ten or fifteen minutes. After there has been some improvement Special Manual Treatments 1 to 10 should be added, taking these in the morning and the abdominal packs in the afternoon, followed by a warm tub bath for fifteen to twenty minutes.

After the acute symptoms have subsided the diet may be amplified by the addition of the orange pulp for a day or two. Eating

may then be resumed gradually, employing a raw food diet of fruit, vegetables and buttermilk, or some other form of skimmed sour milk. If the patient is overweight not more than a quart of buttermilk should be taken daily, while if underweight two quarts or more may be allowed.

Other natural food may be added gradually after two weeks. When eating has been resumed the abdominal packs may be discontinued, using alternate hot and cold sitz-baths instead, for about two weeks. Activity is to be resumed gradually, giving special attention to abdominal and back exercises taken lying down.

In the treatment of the *chronic* form it would be advisable to begin with a fast of three to six or perhaps seven days. Fast-Breaking Routine No. 1 may be used thereafter. It may be difficult to adhere to an exclusive milk diet, as advised in this routine; but if the patient finds this possible he can rest assured that relief will be far more speedy than when a different diet is used. Where there is decided nausea when beginning the milk diet the free use of lemons and lemon juice will bring about relief. The milk can then be continued with comfort and advantage. Milk Diet No. 1 or in some cases Milk Diet No. 2 may be preferable.

Special Manual Treatments 11 to 16 or Self-Applied Exercise Movements 1 to 6 can be especially recommended as a means of assisting the vital processes in remedying this ailment. Where the patient is sufficiently strong, long walks, combined with the deep breathing exercises, will be of special value. Hot or cold abdominal packs, if applied on retiring and allowed to remain until morning, will be of distinct value in nearly all cases. If the patient is feverish the packs should be cold; otherwise, warm.

Warmth of a comfortable degree should be maintained in all cases. If the patient finds it impossible to adhere to the exclusive milk diet, then Milk and Fruit Diet No. 1 or No. 4 should be taken, or where there is a definite distaste for milk, any Salad Diet from No 1 to 6 may be used to advantage for a short period, after which a regular diet routine may be adhered to, provided that care be taken to avoid overeating and that sufficient laxative foods and water be taken. A fresh fruit and raw vegetable diet with a minimum of starches, correctly combined, and a small amount of proteins and fat, preferably as good butter and cottage cheese, is an excellent alternate diet in this condition.

In the treatment of both acute and chronic forms of this disease fresh outdoor air is of inestimable value. Air-baths and sun-baths should be used in connection with the general vitality-building routine which the patient should adopt.

JOINTS, CRACKING OF.—There should be nothing alarming about this symptom provided there is no pain or inflammation.

Jaundice,
Fasting in

It commonly arises from a lack of the synovia, the lubricating fluid which normally is secreted by and within the synovial membranes. The normal secretion of this fluid is a matter of nutrition and circulation. It will help matters to improve the local circulation by the use of alternate hot and cold compresses, followed by massage, bending, moderate stretching and other manipulations of the joint. Rest of the affected part often is necessary.

Sun baths, and especially diathermia through the joint, should be taken frequently and regularly when possible. Heating compresses applied at night and allowed to remain until morning or until dry will help materially also. Infra-red irradiation, continued each time for an hour or so, is an excellent form of heat for this condition. It is best to apply very cold compresses for a short time after this prolonged heating treatment, or to apply a heating compress which should remain on until dry. Dry friction intensively given over the affected part, including the entire body, is valuable. Constitutional measures will be necessary; in fact, chief reliance should be placed upon them. For this condition no treatment is equal to diathermia. Infra-red is one of the best treatments. Also, some cases especially call for extended rest.

Joint
Diseases

JOINTS, DISEASES OF (*Arthritis and Synovitis*).—The term synovitis or arthritis is applied depending upon the particular joint tissues involved. A simple joint inflammation generally is a result of blow or strain. If the injury includes an open wound and the patient is in a toxemic condition an infection may develop with the formation of pus. Acute inflammation of a joint also results from gonorrheal infection, or it may occur during the progress of chronic gout, rheumatism or arthritis. The fundamental cause in all cases, except the milder forms resulting entirely from injury, is a general toxemia resulting from wrong habits of living.

Joint
Diseases,
Symptoms

Symptoms. The symptoms are much the same in acute and chronic joint conditions, the difference being more in degree than in kind.

Arthritis

Arthritis (*Inflammation of a joint*). This term is now used specifically to designate a joint inflammation due to infection from a localized area of suppuration, such as abscessed teeth, tonsils, gall-bladder, appendix or to gonorrhea. As in the case of gonorrhea, while these localized areas of suppuration no doubt sometimes have considerable to do with production of the joint inflammation, the fundamental cause of the latter must be considered a general toxemia. This is always present to some extent or there would be no local inflammation. Many cases of arthritis occur without the so-called foci of infection. Practically all cases of arthritis, therefore, are due to overeating and other dietetic errors,

insufficient elimination and general wrong habits of living. There are several forms of arthritis, the most important being rheumatoid arthritis. (See *Arthritis deformans*.)

Tuberculous Arthritis is an extremely serious condition, being distinguished from tuberculosis of the bone chiefly by its location. (See also *Ankylosis*, *Hip-Disease*, *Hip-Joints*, *Congenital Malformation of*.) The local pain is severe and is likely to be much worse at night, occurring in paroxysms which cause jerking and twitching of the limbs. As the bone structure also is involved in arthritis there may be a resultant deformity and loss of function of the joint. The acute form of arthritis is likely to develop into the chronic form.

Tuberculous
Arthritis

If acute arthritis goes on to suppuration the constitutional symptoms are severe. There are chills, a temperature running from 100 to 104 degrees, a great increase in the amount of pain and swelling, the skin over the joint becomes red and edematous and pits on pressure. As the pus forms in the joint the ligaments become either softened or destroyed, causing the articular ends of the bones to come into direct contact. In such cases grating often can be detected in the joint. Sometimes the amount of pus is small; at others it is large and may burst through the softened capsule of the joint and create grave disturbance, locally and generally.

Synovitis. The symptoms of synovitis are somewhat similar to those of arthritis, but are less pronounced, the pain being less severe. There are swelling, pain and tenderness of the affected joint, increased by attempts at moving the joint, limited motion due to the swelling. Generally some fluctuation is to be felt, owing to the increased amount of exudate into the synovial sac, though in some cases there is no exudate. In other cases the disease progresses and the fluid exudate becomes purulent (*Purulent synovitis*). In these cases there are likely to be severe constitutional symptoms: Headache, chilliness, fever, prostration, constipation, and considerable pain. Such cases often require surgical relief. Ankylosis, or stiff joint, frequently follows synovitis, especially the cases in which pus develops. *Gonorrheal synovitis* and *gouty synovitis* have no outstanding characteristic symptoms. They are so named owing to their more or less specific causes.

Synovitis

Treatment. Irrespective of the variety of joint diseases, except perhaps when due to direct injury without complications, the treatment in all cases must be constitutional, the aim being to purify blood and body cells and increase vitality. In the simple forms of inflammation the first requirements are rest of the affected part and an immersion in hot water for ten or fifteen minutes. If this is not convenient, plain or Epsom salts hot compresses should be applied. In either case a cool local sponge and light, local

Joint
Diseases,
Treatment

massage should follow. This treatment should be repeated several times at intervals of thirty to sixty minutes, especially if there is much pain. The affected joints must not be moved.

Joint
Diseases,
Treatment

At night a cold pack may be applied to the affected parts before retiring and allowed to remain until dry. These treatments should be repeated each day until the inflammation subsides. Special care must be observed to eat laxative foods, to maintain normal activity of the bowels. Enemas should be employed if necessary. After the inflammation has subsided, passive exercise and massage should be employed for two or three days before active exercise is attempted. The latter must be started gradually.

In those cases complicated by toxemia, where the inflammation is severe, or where pus forms or other diseases are present, constitutional treatment will be required in addition to local treatment. Complete Fast No. 3 should be employed, using full warm enemas daily. A hot-blanket pack may be given every other day, or if much fever develops this may be changed to a cold wet-sheet pack. The local packs and compresses mentioned should be used.

Where there is pus in the joint, local applications of sunlight or ultra-violet light would be of further assistance. The fast should be continued until the acute symptoms subside and followed by the fast-breaking routine appropriate to its length. Thereafter a diet mainly of raw foods, chiefly vegetables and nuts and some form of sour milk, should be employed, unless another diet is especially indicated by the presence of another disease. At this time the hydriatric treatment may be discontinued except for the nightly heating compresses, which should be continued for another week or more. If there is a gonorrheal infection treatment for this disease should be used also.

Joint
Diseases,
Chronic,
Treatment

In *chronic conditions* of the joints the same treatment may be used with good results, though often a protracted fast or a diet of fruit juice or vegetable broth is of more benefit than any compromise. Instead of milk following the fast one should use the alternate diet in the appropriate Fast-Breaking Routine "A." Ultra-violet irradiations, fomentations and heating compresses should be employed frequently. Massage, manipulations and passive and active exercises of the affected joints should be used when the condition permits. But, except when a comparatively painless ankylosis exists, the movements, particularly those given by an operator, should cease upon the slightest pain when beginning this treatment. Gradually more and more movement may be made, even though causing some pain, though it may be necessary to treat somewhat less often. Neither active nor passive movements should be given if the condition is tubercular. Infra-red is beneficial. Diathermia through an inflamed joint, whether

acutely or chronically inflamed, is excellent and should be used frequently. It may be followed by manipulation with better result than without this through-and-through heat, also with less discomfort to the patient. (See also *Bursitis*.)

KERATITIS.—Inflammation of the cornea. (See *Eye, Diseases of*.)

KERION.—See *Favus*.

KIDNEYS, DISEASES OF.—The kidney may suffer either acute or chronic disease. The acute affections are not as common as the chronic. The acute abnormalities to which the kidneys are liable are congestion, nephritis, and pyelitis. All these conditions are inflammatory in character. The different terms indicate the location and the extent of the inflammation, rather than distinct diseases.

Kidney
Diseases

Congestion refers to a general affection, while nephritis and pyelitis refer respectively to inflammatory processes in the tubules and the pelvis of the kidneys. When the inflammation is acute, one form seldom occurs without the other. Abscess of the kidneys may occur. Eclampsia and uremia are terms referring to general disturbances resulting from inferior kidney action. Stone in the kidneys (renal calculus) is a chronic disease which may give rise to acute pain called renal colic.

Cancer of the Kidneys. This is a comparatively rare location for cancer. The first manifestation is the development of a painful, immovable tumor which can be felt through the abdominal wall. It often produces a swelling on the side affected. The usual signs which characterize a cancerous growth are present. A symptom of some significance is the discharge of blood in the urine.

Kidney
Cancer

Treatment. In its advanced stages, this is an ominous malady. Frequently, very deep doses of x-ray under the most skilful physicians prove of no avail. However, material relief may be secured by following the suggestions made herewith. There also is a possibility of the diagnosis being inaccurate, as to the nature and extent of the disease. Therefore, the patient should enter with confidence upon the following routine. He should begin the treatment with Complete Fast No. 2 for three to fifteen days, its duration depending largely upon his weight, though during the fast his general physical condition should be carefully watched. If his strength becomes so depleted that he finds it necessary to remain in bed the fast should be broken. The fast-breaking routine adapted to the length of the fast should then be used and an exclusive milk diet should be taken until a considerable increase of weight has been gained.

Kidney
Cancer,
Treatment

He should take Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 before beginning milk diet each day, and follow out the neutral bath suggested in the description of the

milk diet. After having continued the milk diet for two to four weeks, or after regaining weight, use Combination Milk Diets Nos. 2 and 3 or 11 and 12, varying the diet in accordance with the appetite. A moderate amount of exercise should be taken when discontinuing the exclusive milk diet. The Self-Applied Manipulations mentioned above may be used in the evening before retiring. Walking is especially advised as a means of adding to the general vital vigor.

Kidneys,
Dropsy of

Dropsy of the Kidneys (Hydronephrosis) occurs only when some obstruction checks the flow of the urine into the bladder. The part affected becomes dilated to the extent that a swelling may form, containing a large amount of urine. Women are more subject to this disease than men. Among the causes that produce it are obstruction of the ureter by a stone, stricture or narrowing of the ureter caliber as the result of ulceration or inflammation, kinking of the ureter due to movable kidney, uterine displacements, and kidney disease.

Kidneys,
Dropsy of,
Symptoms

Symptoms. The attendant symptoms are severe pain in the region of the affected kidney, swelling, especially on the side of the abdomen, a partial or total retention of urine and sometimes the passage of bloody urine. Like all other dropsical ailments, this disorder usually comes into existence with other severe constitutional disturbance.

Kidneys,
Dropsy of,
Treatment

Treatment. The use of hot hip packs, complete hot-blanket packs or hot sitz-baths will soon bring about material relief. When definite signs of relief appear it would be advisable to encourage the free drinking of water, also the use of enemas, though while the acute symptoms continue no more water should be used than is absolutely essential to quench thirst; also if an enema is required, only that amount which is necessary to bring about desired bowel activity should be used, but given daily. In severe cases surgical measures are necessary.

Following recovery from the acute symptoms, vitality-building methods should be closely adhered to. This among various things would mean Complete Fast No. 2, or an abstemious diet such as recommended in Limited Diets Nos. 1 to 7; though if there is much emaciation an exclusive milk diet would be much better, at least for a short period. If the general vitality-building routine advised in cancer of the kidneys is followed, one may rest assured that he is pursuing the proper course. (See below.)

Kidneys,
Floating

Floating Kidney. A disorder more frequently found in women than in men, especially between the ages of twenty-five and fifty. In it one of the kidneys becomes displaced and sinks within the abdominal cavity. The first degree of the condition is termed palpable kidney—one that can be felt. The next, a minor degree

of the condition, is termed movable kidney. The displacement is due to the relaxation of those tissues and muscles which hold the organ in position, or the absorption of the fatty tissue in which the normal kidney is embedded. It is a sign of general weakness.

A floating kidney is not a perilous condition. Though an operation often is advised, it is doubtful whether this is of permanent utility. It perhaps is needless to mention that though the kidney displacement may be due to violent exertion or strain or bending in straining position, general lack of muscular tone and impaired vitality (often due to corsets, high heels and similar fashions) certainly has an influence in the development of this condition. At present corsets are being little worn. Let us hope that high heels also may be as little used by women as corsets now are, for health reasons.

The position of the kidney varies with the posture of the sufferer. This movement gives rise to many unpleasant symptoms. At the inception of the ailment these signs may be slight—such as general uneasiness and discomfort, slight abdominal pain and aching in the back—and they generally disappear when the organ returns to its normal position. These symptoms are likely to appear when the patient is standing, but will disappear upon lying down. This is due to the fact that in the latter position the kidney will fall back (or partially) into its proper position with relaxation of the tension and drag on the attachments of the organ. But as the displacement becomes more serious a sudden change in position or twisting of the body gives rise to violent abdominal pain, nausea and vomiting, with dull aching in the lumbar region and severe headache. Persons with floating kidney often develop marked nervous symptoms, generally of a hysterical nature. Dietl's crisis is a sudden attack of paroxysmal lumbar and abdominal pain, with nausea and vomiting in cases of floating or wandering kidney.

Treatment. This condition, while not extremely serious, nevertheless indicates lowered vitality.

Important in this difficulty is exercise for strengthening the external and internal muscles of the abdominal region, combined with a nourishing diet which previous experience has shown will be satisfactorily digested. In a normally well-nourished man or woman, the system is provided with sufficient fat surrounding the kidneys to properly support these organs.

The special exercises are best taken on a reclining table or a board. The head should be about 18 inches lower than the feet, thus causing the abdominal organs, including the floating kidney, to fall back into their normal positions. While in this position if the various movements are taken with the view of strengthening the ligaments and muscles there will be a strong possibility of the

Floating
Kidney
Symptoms

Kidneys,
Floating,
Treatment

floating organ reassuming its normal position. Self-Applied Hip and Spinal Manipulations 27 to 32 are of considerable advantage in this connection. (For illustrations of exercises see *Uterus, Displacements of.*)

Upon retiring at night it also would be of advantage to assume what is known as the knee-chest position, that is, to kneel and bend forward until the chin touches the bed, remaining in this position for a short time, then moving the body backward and forward and finally straightening out and sleeping on the side that proves most comfortable in practice.

In cases where the malady is so serious that this exercise does not seem to bring about the desired result, it might be advisable to recline on the back with the hips raised considerably above the head when going to sleep, for it is well during slumber to have the affected organ in a proper position. The foot of the bed or of the bed springs may be raised several inches, so gravity may assist throughout sleeping and resting hours. In serious cases it may be well to take the milk diet in bed with the bed thus raised. In all ordinary cases of this disorder, however, a general physical up-building will tend to help. So if a moderately active life is followed thereafter, with due attention to diet and habits, the abnormality probably will not reappear.

When the kidney ligaments are weak one cannot expect the organs to remain in the position that Nature intended them to occupy. The remedy is to strengthen and tone up the ligaments and allied portions of the body with a view of compelling them to assist in holding the affected organ in place. Restoration of intra-abdominal fat should be encouraged by a nourishing (but not excessive) diet and good balance between rest and physical activity.

Acute
Bright's
Disease

Nephritis, Acute Bright's Disease, or inflammation of the kidney tubules, does not develop unless the kidneys have been greatly irritated by the elimination in the urine of a considerable excess of toxins in the body. The general toxemia may cause the inflammation of the kidneys directly or indirectly by first bringing about a general disease, such as one of the eruptive fevers or pneumonia. If these diseases are not properly treated the kidneys may then become involved.

Acute nephritis may be due also to the use of certain drugs, to surgical operations or to wrong habits of living during the period of pregnancy. In fact, wrong habits of living are in any case the fundamental causes of all kidney inflammations or conditions which may give rise to such inflammation. Exposure to cold and wet is often given as a cause of acute nephritis; but if the patient's vitality and resistance have not been reduced by wrong habits of living such exposure would have little effect.

Symptoms. The onset is variable. In children it often is rapid; in specific fevers it is insidious. In children the symptoms are typical almost from the beginning, while in adults there may be only slight malaise, though there are marked urinary changes. As a rule, the first symptoms noticed are headache, nausea, vomiting, diminished amount of urine, constipation, sometimes fever, sometimes none. The complexion becomes rather pasty, there is puffiness of the face and around the eyes and some swelling of the ankles. The skin is dry, the tongue coated and the pulse sometimes accelerated. There may be chills.

Acute
Bright's
Disease,
Symptoms

In children the disease may be ushered in with convulsions. Later on edema, which may be general, occurs. It may affect the scrotum and the sacral region while the puffiness of the face, eyes and ankles remains. There are marked anemia and increased blood pressure. The urine contains a high percentage of albumin, is scanty, dark and smoky colored, the latter condition being from the presence of blood.

In favorable cases improvement begins after a few days to one or two weeks, when all of the symptoms begin gradually to decrease. Acute Bright's disease may terminate in complete recovery, or it may run on and become chronic. Should an acute uremic condition occur there may be convulsions and coma, the case being then critical.

Chronic Bright's Disease may be a result of an acute attack of nephritis or it may develop insidiously and slowly, when general constitutional ill-health may be the only symptom of importance. To judge from a visual examination of the urine, in such a case, there may be but little indication of the disease, so a microscopical examination of this fluid is necessary to determine the quantity of abnormal solids contained.

Chronic
Bright's
Disease

The several different forms of chronic Bright's disease give



Hot-water bottle applied to lower back. This is used in such painful conditions as kidney congestion, lumbago, neuritis, neuralgia, rheumatism, inflammation of the hip, and other disorders.

different symptoms in some particulars. In one form the urine is decreased in amount; in another it is greatly increased; in one there is dropsy; in another there may be none at all. In general, however, the principal symptoms of chronic Bright's disease are dimness and failing vision, high tension pulse with increased blood pressure, dyspepsia and anemia, great weakness and shortness of breath, a pallid skin, dark rings under the eyes and headache.

As the disease develops, dropsical symptoms generally appear, coupled with enlargement and palpitation of the heart. Preceding the appearance of dropsy there sometimes is difficulty in voiding urine. Under these circumstances the use of a catheter may become necessary to draw the urine.

Women in the later months of pregnancy may develop Bright's disease. It is important to recognize this condition as early as possible, as if undiscovered and unchecked it may cause a toxemia with the occurrence of convulsions, unconsciousness and death.

Treatment. When the kidney is congested or inflamed it is important to take water and other liquids freely, though elimination through all other natural channels, especially through the skin, should be stimulated. It is desirable that the elimination be carried on through the kidneys themselves by the use of sufficient liquid to produce frequent urination of pale (non-concentrated) urine, in as large quantities as possible.

In *acute cases* hot-blanket packs and cold wet-sheet packs are excellent, also hot immersion baths (112 to 115 degrees F.). The hot-blanket packs may be used when there is little fever or when the patient's reactive powers are reduced. In some cases when the patient is weak the packs may have to be limited to the abdominal region. Such packs should be given every day until the acute symptoms subside. In severe cases with high fever cold wet-sheet packs may have to be used, remaining on for two to four hours, if the patient's strength permits, and being renewed every hour by sprinkling with cold water, reaction each time to be insured taking place promptly.

An abundance of fresh air is necessary, but the patient should be kept warm. A daily enema should be given. No food should be allowed until the symptoms have disappeared. Complete Fast No. 3 is preferable to others, the plentiful drinking of water serving to dilute the urine and prevent further irritation of the kidneys. Usually hot water is best, except when there is considerable fever. In acute nephritis rest in bed is essential, and is imperative in cases with fever. In any case, muscular exertion increases the amount of solid materials eliminated through the kidneys, though it cannot add to the vitality in this disease.

Young children not infrequently develop nephritis. As it

may be difficult to keep them on a complete fast long enough to eliminate all symptoms, it is permissible to give diluted, unsweetened orange or grape juice if it is especially craved, but nothing else. While there is fever it is best to give nothing but water or water flavored with lemon juice. Any child can fast for two or three days, by which time there should be sufficient improvement that the orange juice will not interfere with further progress.

When the acute symptoms have subsided the fast may be broken, using the appropriate fast-breaking routine, and then following with Milk Diet No. 1. It would be much better to remain on three quarts a day (after gradually reaching this amount) for several days before increasing the quantity further. Children who have been taking orange juice may start the milk diet immediately upon disappearance of the symptoms, using quantities proportionate to their ages. This diet should be adhered to until there is full recuperation.

Milk is especially indicated in kidney disorders, being easier on the kidneys than any other diet. Many people imagine liquid in large quantities to be detrimental to the kidneys. This is a mistake. As a matter of fact, it is the highly concentrated urine, heavily laden with solid material, which is irritating to these organs. After starting the milk diet the abdominal or general packs should be omitted. An alternate hot and cold sitz-bath may be taken daily for several weeks. Sun-baths also are helpful, but sunburn must be avoided. However, a mild redness may be produced without harmful effect.

Where acute inflammation of the kidney is a complication of some other disease the treatment should be directed toward the causative abnormality, though it would be well to employ hot abdominal packs and the milk diet if at all possible.

In the treatment of *chronic Bright's disease* one must depend to a large extent upon the increase of general vital vigor to insure desired results. Usually a fast of seven to fourteen days in the beginning of the treatment will be of value. Complete Fast No. 2 may be followed for two to five days with advantage, with Fast-Breaking Routine No. 1 following. The exclusive milk diet is to be insisted on as a means of securing satisfactory results. In this condition it is best that this diet be taken in bed, after the fast suggested, following out the instructions of Milk Diet No. 1.

If conditions are such that the patient cannot go to bed, then Combination Milk Diet No. 2 or No. 3 or any of the preferred Salad Diets is especially recommended. In some instances a small quantity of bread or rice may be allowed, though this must be used with great care, while the symptoms must be coincidentally and closely watched. When using these two articles of food, in case

Kidneys,
Acute
Diseases of,
Milk Diet in

Kidneys,
Chronic
Diseases of,
Treatment

there is any change for the worse, they must be immediately discontinued.

Special Manual Treatments 11 to 16 may be used to advantage. If the patient is moderately strong, Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be taken regularly each day. Note, however, that the exercises recommended are for only those patients who are not following the milk diet. While taking the milk diet no exercise of any kind should be followed except those which are given in the special Manual Treatments mentioned, and this should be taken during the morning of each day before beginning the milk diet. If the milk diet is not being taken, or after it has been discontinued, gradually lengthened walks and general exercise with the view of adding to the vitality of the patient are to be highly recommended.

Following the milk diet a general vitality-building routine should be adopted. In numerous cases organotherapy is of much value, kidney substance being employed. It certainly can do no harm, and may do much good.

Renal Calculus. Generally small stones and gravel in the urine may be regarded as premonitory warnings of the formation of larger stones, with the liability to an attack of renal colic. When the deposits eliminated are fine, little or no discomfort may attend their passage. But the signs by means of which their presence can be detected are the appearance of mucus, pus and a sandlike deposit in the urine after the liquid has been left standing. Irritation of the urinary passage, with marked irritability after urination, is a characteristic sign of the development of gravel in the kidney.

When the kidney stone is too large to be expelled from the kidney it remains therein and increases, eventually causing changes in the kidney structure by reason of its pressure. When a kidney stone is of such size that it may engage in the ureter and attempt to pass down into the bladder it may give rise to an attack of renal colic. Should it become impacted in the ureter a serious condition might also arise from the distension of the pelvis of the kidney with urine which could not pass into the bladder.

Renal Colic begins with severe pain in the affected region extending from the small of the back into the abdomen, groin and genital region. The temperature rises, there are vomiting and nausea, cold sweats, marked difficulty in urination and the spasms of pain may become agonizing to the degree that faintness and unconsciousness follow. With the passage of the stone these symptoms disappear; but as the excrescences rarely form singly, other paroxysms may be expected. In proportion to the size of the stone passed, a discharge of blood takes place in the urine.

Kidney
Stones
(Renal
Calculus)

Renal Colic

Treatment. This condition usually is difficult to relieve. Full relief can be expected only after the stone which causes the symptoms has passed through the ureter into the bladder. The pains often associated with the passage of these stones are excruciating, so the temptation to use morphine or other drugs of this character is very strong. Remember, however, that if these pains can be endured the after-effects will be less pronounced if drugs are avoided. The application of hot packs to the abdomen often produces relief; but, as stated, permanent relief cannot be expected until the passage of the stone. On some occasions these stones grow so large that it is impossible for them to pass through the ureter. Under such circumstances an operation is necessary.

Renal
Colic
Treatment

The copious drinking of distilled or absolutely soft water is advised. As a rule, more hot water can be drunk than cold; therefore it is advisable to take it heated. Drinking water often causes vomiting when one is suffering from this condition. As this often brings about severe pain, many patients are inclined to avoid water as much as possible. This is a mistake, however, so efforts should be made to take considerable water, even in spite of this symptom. In some instances where there is vomiting, if the water drinking is continued the stomach will quiet down and relief will be experienced.

Although relief from the acute symptoms is to be desired, it is important that life habits be such that future attacks shall be avoided. One may expect permanent relief provided one adopts a routine dietetically and otherwise hygienically sound that will maintain a high degree of vigor and, especially, avoid a concentration of waste material and undesired elements in the kidney or elsewhere.

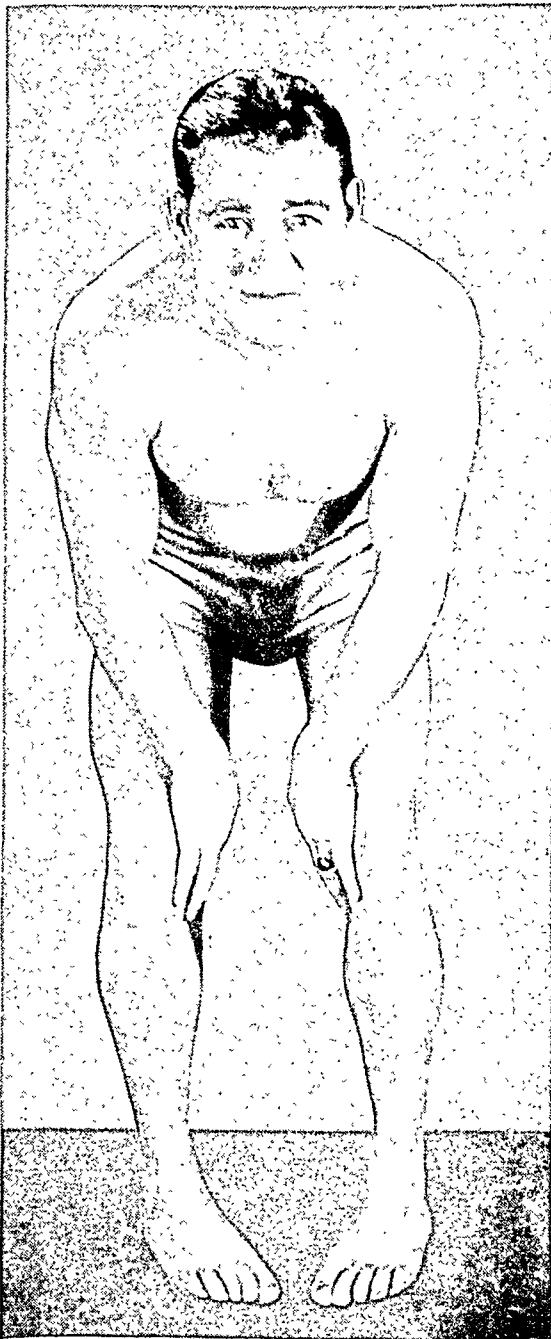
Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 should be taken each morning on arising, and Hip and Spinal Manipulations 27 to 32 upon retiring. Every means that can be adopted with a view of adding to one's muscular and vital well-being is of advantage. The more nearly one can possess the vigor of an athlete, the less likelihood is there for further attacks of this disease.



Kidney
Stones,
Treatment

PHOTOGRAPH WIDE WORLD

This case of knock-knees in childhood was reported completely cured by corrective exercise and mechanical treatments as adjuncts to proper diet.



A posture exercise for knock-knees. In standing position, bend forward and place the hands against the inner sides of the knees. Press downward and outward against the knees, at the same time turning the toes inward as far as possible. Relax pressure on the knees and return toes to forward position. For best results, it is recommended that this exercise be repeated ten or more consecutive times or until the patient is rather tired but not fatigued, also that the series be undertaken morning, noon and night.

The free use of distilled water is of special advantage. Often it is advisable that water from ordinary springs or wells be avoided. An occasional short fast with copious water drinking will be of decided benefit and may be followed by a citrous or other fruit diet and this followed by Salad Diet No. 5 or 6 with further beneficial results.

KLEPTOMANIA.—An insane impulse to steal. See *Mental Diseases* for general treatment. Suggestion or psychoanalysis doubtless will be of value.

KNOCK-KNEE.—A deformity which develops in the knee-joints in consequence of rickets (which see) or through the strain of long-standing when the body is in an undeveloped or a devitalized condition. The abnormal condition shows itself when standing in contact of the knees while the heels are some distance apart, and when walking by the knees knocking together. Naturally, in extreme cases, the sufferer is incapable of sustained exertion and can neither stand nor walk for long periods.

Treatment. Improvement may be expected if the following suggestions be adopted. Self-Applied Manipulation No. 24 in the section on Special Treatments (Vol. VI) would great-

Kleptomania

Knock-Knee

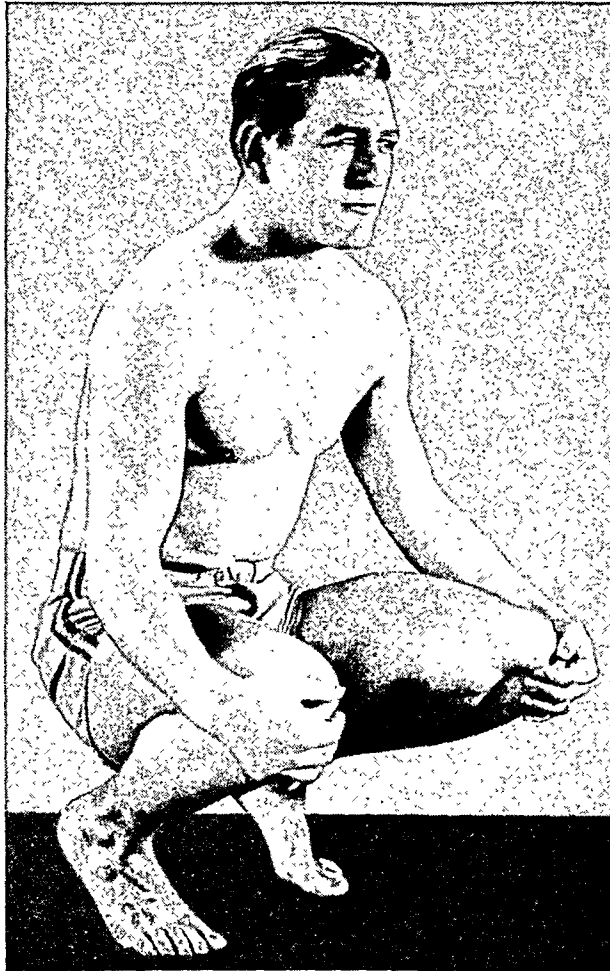
ly assist in remedying this trouble, if taken two or three times daily and continued on each occasion until a fair amount of fatigue has been induced. Other movements illustrated influencing the knee will be of some benefit; for instance, all those involving outward stress at the knees. Similar stress by means of braces worn at night may be of further assistance. Where the defect is not associated with rickets these methods, if continued for a sufficient length of time, together with other means that strengthen the organism as a whole, may bring about changes for the better. But where there is an actual bony malformation only slight improvement may be expected under any conditions.

KYPHOSCOLIOSIS.—Spinal curvature, both lateral and backward in combination. See *Spinal Curvature*, under *Spine, Diseases of*.

KYPHOSIS.—A backward curvature of the spine, sometimes to the “hunchback” degree. See *Spine, Diseases of*, also *Hunchback*.

LABOR.—See *Childbirth*, also Volume IV, Section 4.

LACHRYMAL SAC, INFLAMMATION OF (*Dacryocystitis*).—The lachrymal sac is the upper part of the duct into which empty the two tear ducts. Inflammation of this sac may be either acute or chronic. The *acute form* generally occurs in the course of a chronic inflammation. The skin over the lachrymal sac becomes swollen, red and boggy. This extends to the ad-



Lachrymal
Sac
Inflammation

Second exercise for knock-knees. In squatting position, place the hands against the outer sides of the knees. Spread the knees apart, resisting the movement with the hands. Return to first position and repeat ten or more times.



To examine the mouth and throat, the tongue may be pressed down by means of the handle of a spoon, as here illustrated.

jacent parts of the eyelids and the conjunctivæ. There are considerable tenderness, pain and some fever. After two or three days an abscess generally forms and after the pus is discharged the condition clears up. The opening made by rupture of the abscess may heal quickly or it may persist and an open space (fistula) remain which discharges a watery

fluid. If this fistula closes at the opening before healing has taken place throughout its length another abscess may form.

The *chronic form* gives no marked symptoms except fullness in the region of the sac and the formation and discharge of a whitish sticky fluid which on pressure exudes upon the conjunctivæ or into the nose. This chronic condition usually is the result of an obstruction which causes the tears to decompose in the lachrymal duct, producing suppuration and inflammation of the sac. The causes which produce the condition are constitutional. For this reason, though it is possible to remove the obstruction by means of surgical treatment, this disease should not be regarded as a purely local affection.

Lachrymal
Sac
Inflammation,
Treatment

Treatment. Application of cold wet compresses to the affected parts might be of some aid, though if one will adopt Complete Fast No. 2 for two to five days, and follow it with Limited Diet No. 10, in nearly every instance he will note a material change for the better and in most instances an entire removal of the unpleasant symptoms associated with this affection. As a means of constitutional upbuilding a cold wet-sheet pack may be taken daily. Where constipation is present the free use of the enema would be advised.

LA GRIPPE.—See *Influenza*.

LARYNGISMUS (*Spasm of Larynx*).—See *Glottis, Spasm of*.

LARYNGITIS.—See *Larynx, Diseases of*.

Larynx,
Diseases of

LARYNX, DISEASES OF.—The larynx (seat of vocal cords) is subject to a variety of affections which more or less interfere with

the production of the voice. The most common of these ailments is laryngitis, which may be either acute or chronic.

Acute Laryngitis may develop as the result of a cold, from over-use of the voice, irritation by smoke, gases or hot liquids, or from foreign bodies. It also may occur in the course of some of the infectious fevers, such as influenza or measles. There are tickling in the larynx and a dry, metallic cough, sometimes a slight fever. Often there is no expectoration, but occasionally there is a thick sputum which may be streaked with a little blood. There are hoarseness and slight soreness of the throat, which is parched and dry, and there may be entire loss of the voice for a time.

Laryngitis,
Acute

When the attack is accompanied by no expectoration, considerable time is needed for the vocal muscles to recover their elasticity. But when a mild catarrhal condition is present a spontaneous cure often results in a few days. The dry condition is due to congestion and to the accumulation of hardened mucus around the vocal cords. Until this mucus is softened and expectorated the larynx cannot become normal.

Chronic Laryngitis generally is a result of the acute form, though sometimes it appears to be chronic from the start. Too much use of the voice is a frequent cause, while in many instances, the use of alcohol and tobacco to excess also aid in producing it. The chief symptoms are dryness and tickling of the throat with hoarseness and loss of voice. The degree of hoarseness varies with the amount of muscular strain imposed upon the vocal cords. When this condition is neglected partial paralysis of the vocal muscles may follow, especially if the local trouble is attended with constitutional weakness, and the voice may be permanently altered.

Laryngitis,
Chronic

Tuberculosis of the larynx or tuberculous laryngitis, is a much-dreaded disease, though tuberculosis rarely attacks the throat until it has invaded other portions of the organism, especially the lungs. The symptoms which accompany tuberculosis of the lungs are present; and, in addition, obstinate and chronic hoarseness coupled with pain on swallowing are indications that the malady has gained a foothold in the throat. If much ulceration is present the pain often is intense.

Laryngitis,
Tuberculous

In some cases the mucous membrane of the larynx swells to such a degree that respiration becomes difficult, so artificial means for the purpose of breathing become necessary. This disease progresses with rapidity when other organs of the body are involved. But when the tuberculous degeneration is confined to the larynx the condition may last for years.

Edema of the Glottis is a serious condition because dropsical condition of the glottis closes the air passages and the patient may be quickly asphyxiated. This condition, however, never is a

Edema of
Glottis

primary complaint, but is secondary to acute or chronic laryngitis, injury or septic inflammation. The principal symptom is sudden dyspnea or difficult breathing which rapidly becomes worse. There may be a sharp sound on inspiration and loss of voice.

Laryngeal
Tumors and
Cancer

Tumors and Cancer of the Larynx are of common occurrence. The tumors may take the form of polypi or warts and be comparatively harmless. These, however, produce irritation, tickling, cough and expectoration and in some cases severe pain. In malignant tumors there are gradual wasting away of the body and increasing weakness.

In such instances the removal of these excrescences by knife often is recommended. It is well to remember that an apparently harmless and benign growth often is the forerunner of one of malignant nature; and when a cancerous growth appears in the throat the victim usually is beyond the reach of mortal aid.

Larynx
Diseases,
Treatment

Treatment. Acute laryngitis: If the laryngitis is a complication of some other disease the chief treatment should be directed toward that. See especially under the heading of *Tuberculosis*. Otherwise the treatment is the same in all cases of acute laryngitis and the same in all chronic cases.

Complete voice rest is advisable until the acute symptoms subside. Any attempt to use the voice will only irritate the larynx and increase the inflammation. The patient should write any communications he has to make.

Complete Fast No. 2 should be started immediately, drinking hot water copiously. If much swelling of the larynx develops, however, this should be changed to cold. A full fairly hot enema should be given daily if needed. If unable to drink much water on account of pain in the throat, another enema should be given, the water of which should be retained. A cold neck pack should be applied for two hours at a time several times a day and always before going to sleep at night. A hot abdominal pack may be given daily also, except when there is much fever, in which case the pack should be cold.

A plentiful supply of pure fresh air free, if possible, from irritating particles is necessary. If the patient can be on a sleeping porch so much the better. Where there is an infection as well as an inflammation, local irradiation of the larynx with sunlight or its artificial substitute is of much assistance. The sunlight treatments may be given with special reflecting mirrors.

Mild antiseptic sprays and inhalations assist in keeping the throat clean, thereby reducing the amount of coughing and in clearing the throat which would otherwise be necessary. Such coughing and throat clearing are as irritating as talking.

In severe cases where there is much swelling the cold neck pack

should be kept on continuously, except for one-hour rest periods after each two hours of application. Enemas should be given daily. In extreme cases of edema of the larynx the electric cautery may be used (by a physician). Intubation or even tracheotomy may be required in some cases. If proper treatment is taken at the start, however, these extreme measures are seldom necessary.

In most cases the fast, fresh air and cold packs will soon reduce the inflammation. When the acute symptoms have subsided the fast may be broken with an appropriate fast-breaking routine, followed by Milk Diet No. 3. Most patients who have laryngitis need general building up, so the milk diet is especially valuable for this purpose. If unable to continue the full milk diet, one of the milk and fruit diets may be used. In mild cases of simple catarrhal laryngitis, the regular diet may be resumed after the fast-breaking routine, care being observed not to overeat. Plenty of water should be taken between meals. The patient should still continue to get abundant fresh air, should be careful in the use of his voice and should continue the use of a cold neck pack at night for at least ten days. At this stage sometimes spinal manipulations are helpful.

Chronic Laryngitis and *Tuberculosis of the Larynx*, though different diseases, depend for relief upon the increase of the general vitality; therefore the treatment of both of these maladies is almost identical. The only important difference is the means adopted for relieving the dryness and hoarseness associated with chronic laryngitis. As a rule, the free use of water sweetened with honey, or moderate use of honey itself, will bring relief. Sometimes lemon juice or weak lemonade is of value. These remedies, however, do not apply in cases of tuberculosis of the larynx. Cold wet packs about the throat upon retiring may be of some value in adding to the comfort of the sufferer from this latter affection. But both ailments are treated entirely from the constitutional standpoint, through the blood.

Chronic
Laryngitis,
Treatment

First, therefore, is advised Complete Fast No. 2 for three to ten days, followed by Fast-Breaking Routine No. 1. As long as the patient continues to increase in weight, the exclusive milk diet as described in the latter should be adhered to in practically every instance. If difficulty is found in confining oneself to this milk diet, one of the Combination Milk Diets may be used.

Any means that can be adopted for building up the general vitality of the patient will materially help. Self-Applied Movements 7 to 15 are of value for this purpose. Select a vitality-building routine adapted to the strength of the patient and follow each day the instructions given therein. Moderately long walks and light exercises of a kind that accelerate the activity of the

vital organs will be of material advantage. In tuberculosis of the larynx, if the lungs are also involved, exercises will have to be limited in accordance with the stage of the lung condition. In this latter condition sunlight or ultra-violet rays reflected to the affected area by means of special reflecting mirrors will be very helpful.

Tumors of the larynx are treated in the same manner as the diseases just referred to. With tumors the fast is of great value. Let the patient fast as long as he can without showing decided weakness and follow this with the fast-breaking routine adapted to the length of the fast. Let the patient adhere to the instructions given for the building of vitality, as in the case of chronic laryngitis.

In *Cancer of the Larynx* the same methods may be adopted, though in this instance a shorter fast is advisable. But the instructions for vitality-building already suggested may be followed with benefit. This disease, if firmly established, is usually thought incurable, but the patient may expect materially to lengthen his life by adopting the suggestions just given.

LEAD POISONING.—See under *Poisons*.

LEONTIASIS.—Elephantiasis of the face, which sometimes is said to resemble that of a lion. See *Elephantiasis*.

Leprosy

LEPROSY.—A chronic, communicable skin disease rare in the United States and Europe but prevalent in Asia, parts of Africa and the islands of the Southern Pacific. The disease usually first manifests itself on exposed portions of the body, such as hands and face, and slowly extends to elbows and knees, sometimes the mucous membranes. It is characterized by hard tubercular nodules that in time soften and ulcerate. In some cases areas devoid of the sensation of pain appear before the growth of the nodules (*Anesthetic leprosy*, so called). There usually are attacks of fever from time to time. When the disease is fully developed the hair on the face usually falls out, though that on the head does not seem to be much affected. The face is enlarged and thickened, and the expression is changed and becomes lion-like or leonine, as it is called. The ears also are much thickened, the nose flattened, the voice hoarse, lips scarred, eyes inflamed and limbs nodulated. As the leprous condition develops and the ulcers spread, fingers, toes, eyelids, ears and even limbs may ulcerate away.

Leprosy,
Treatment

Treatment. This disease ordinarily is considered incurable, though its progress may become arrested, especially when the patients are in cool climates. The disease may last for twenty or thirty years or even longer.

Cures are said to have been effected by methods similar to those here recommended. Therefore it is suggested that Complete Fast No. 2, from one to three weeks; begin the treatment. Fast-Breaking Routine No. 1 should follow, using the exclusive milk

diet as instructed therein. Where the weight indicates the possession of considerable vitality the fast may be continued longer.

Special Manual Treatments 11 to 16 or Self-Applied Movements 1 to 6 should be taken in the morning of each day before beginning the dietetic routine. After some strength is gained exercises should be taken so as to increase the general muscular and vital vigor. The neutral bath referred to in the instructions on milk diet must be taken each evening. A strict outdoor life is absolutely necessary, with air-baths and sun-baths so far as possible. After the milk diet a general vitality-building routine should be followed closely, involving as much exercise as possible, and free bathing in cold water. (See *Water and Health*, Vol. VI, Sec. 2.) After experiment with a meatless diet, open-air life, cold water bathing and a great deal of exercise, such startling results were accomplished in the State of Florida, in connection with this disease, that the public institutions for its treatment were closed up. If these instructions are followed the disease should be either palliated or cured altogether. Chaulmoogra oil is extensively advised for external use in leprous conditions.

LETHARGY (*Stupor* or *Extreme Drowsiness*).—See *Coma*, also *Tropical Diseases*.

LEUCORRHEA (“*Whites*”).—Leucorrhea is a stubborn and annoying symptom, but it will yield to natural methods which purify the blood and build up the general body. However, it may take a long time to cure when it has existed untreated for a protracted period. The character of the discharge varies with the location of the source of the trouble. If it is thin and watery, or if it is thick and creamy, it usually is due to conditions in the vagina. If however, it is ropy, gluey, or albuminous, like the white of egg, it probably is from the interior of the neck of the womb. (See *Vagina, Diseases of*.)

Leucorrhea

LEUKEMIA (*Leucocythemia*).—Leukemia is a serious and commonly fatal disease. It usually is chronic and comes on insidiously, though it sometimes is acute in character. It is more prevalent in males than in females and between the ages of 25 and 40 years. Leukemia is similar in many respects to anemia, but is characterized by a great increase of the white corpuscles of the blood rather than by lack of the red cells, although these also may be diminished in number.

Leukemia

There usually are more or less fatty degeneration of the tissues, enlargement of the spleen, liver and lymphatic glands and sometimes distress in breathing and walking. In some cases enlargement of the spleen is marked. Sometimes there is bleeding from nose and mouth; nausea and vomiting in most instances; sometimes moderate fever. The cause of the disease may be found in con-

ditions which tend to lower the vitality and impair the functional processes of the body. In short, it is a disease of the blood-making organs, doubtless due largely to toxemia and pronounced enervation.

Leukemia,
Treatment

Treatment. The causes of the disease indicate clearly the general line of treatment. Every effort should be made to arouse the blood-making organs to the greatest possible activity. All general measures that will tend to purify the blood and build vitality should be adopted. Fasting would be advantageous, but owing to the imperfectly nourished condition of the patient a long fast is not to be advised. Complete Fast No. 2 or Partial Fasting Routine No. 1 for a period of three or four days to a week should be followed by Milk Diet No. 1. The later diet should be mainly of uncooked foods, with plenty of green vegetables, fruits and milk or sour milk.

Leukemia,
Baths for

The first thing in the morning Special Manual Treatments 1 to 10 should be given, with a hot spinal pack. As the patient grows stronger more strenuous treatment may be substituted. While fasting, a hot abdominal pack may be used in the evening, but while on the milk diet a neutral bath should supplant this. Instead of either, hot and cold baths may be taken, alternating three or four times, three or four minutes for hot and one to two minutes for cold, though a better plan is to give these two treatments on alternate days. The infra-red or radiant heat irradiation lamp should be directed for twenty minutes daily to the left side of the upper abdomen and twenty minutes to the left side of the back, just below the lower ribs. These treatments should be followed immediately by a cool shower or a splash bath and a finishing cooler application to these two local areas, then by thorough drying by good towel friction. Moderate doses of ultra-violet rays or sun-baths are also excellent.

At all times activity of the bowels is important, and the free drinking of water and sometimes the use of enemas are necessary. Outdoor life, air-baths, sun-baths and dry friction baths are of great value in connection with the general vitality-building routine. With a gain in strength, long walks are especially advantageous, with such additional general exercise as may be suited to the patient's condition. When a patient is muscularly strong and vigorous, when the circulation has improved and the blood-making organs are functioning perfectly, one may depend upon this normal condition of health to aid in the eradication of this complaint.

LICHEN.—A general term for inflammatory skin diseases characterized by solid papules. See *Skin, Diseases of*.

LIGHTNING STROKE.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

LIP, CANCER OF THE.—See *Cancer*.

LIPOMA.—A fatty tumor. See *Cyst; Tumors*.

LISPING.—A speech disturbance which may be due to one of several causes, the most common of which is enlargement of the tonsils. Other causes are harelip, tongue-tie and cleft palate (which see); the after-effects of diphtheria, and paralysis of the soft palate. The treatment will vary with the cause. Sometimes especially in the case of children, an operation is required to remedy this defect. Often the condition is outgrown. Lispings

Treatment. Where this trouble is due to a mechanical defect, such as harelip, etc., little can be accomplished until such defect is repaired. If it comes as an after-effect of diphtheria or is caused by paralysis of the soft palate, the complaint often is curable by constitutional upbuilding combined with the vocal exercises that bring into active use the affected muscles. (For vocal exercises see *The Voice and Personality*, Vol. V, Sec. 7.) To increase vitality select and adhere to a vitality-building routine adapted to one's strength. Self-Applied Shoulder, Neck, Waist and Back Manipulations in Volume VI should be applied. All exercises of neck and spine are recommended, but there should be open-air exercise and activities, also. Complete Fast No. 2 for two to five days, succeeded by Fast-Breaking Routine No. 1, should be observed. The exclusive milk diet described in this routine may be of much benefit to the patient. (See also *Speech, Disturbances of*.) Lispings,
Treatment

LITHIASIS.—The formation of urinary calculi, gouty deposits, or the bodily condition favorable to such. Usually it is called *uric-acid diathesis*. This condition requires constitutional treatment, as for gout or kidney diseases (which see). Lithiasis

LIVER, DISEASES OF THE.—Liver troubles are practically always fundamentally due to dietetic errors, though any wrong habits of living which permit the development of a general toxemia may disturb this organ directly or indirectly. Only those diseases comparatively common will be described here. Liver
Diseases

Acute liver diseases include acute congestion, acute inflammation, acute yellow atrophy, and abscess.

Abscess of the Liver (Suppurative hepatitis). This is a comparatively rare disease, developing usually following an attack of tropical dysentery. The abnormal conditions include inflammation of the external covering of the organ, extending to other organs, such as stomach, intestines, or lungs. Among the symptoms of this condition are pain over the liver, often in the back and the right shoulder. The liver is enlarged, tender, and there is a tendency to jaundice. There are irregular fever, chills, sweats and other signs of a general pus infection. The patient will have a cough and there will be rapid wasting. If the abscess bursts and the pus discharges internally, the result will be fatal; but if the abscess

ruptures into the lungs the pus will be coughed up and the patient may make a good recovery. A tendency toward "biliousness" always precedes the development of a liver abscess.

Liver,
Acute
Yellow
Atrophy of

Atrophy, Acute Yellow, is a serious, in fact almost invariably fatal disease of the liver characterized by rapid destruction of the cells and a consequent loss in size and functioning power of the organ. It seldom occurs except when the liver has been more or less diseased for many years, especially when it has been continually poisoned by the use of alcohol. However, it may be a complication of an infectious fever or of ptomaine-poisoning, and (rarely) as a consequence of pregnancy. The fundamental cause in all cases is long-continued toxemia, resulting from persistent wrong habits of living; then, when some particular condition arises that suddenly adds to the systemic toxins or that produces an unusual strain on the eliminative organs, the atrophy begins. The progress of the disease generally is rapid, so the prognosis is grave.

Congestion, Liver (hyperemia), may be active or passive. *Active hyperemia* is due to overindulgence in carbohydrate food and stimulating drinks, warm or hot climate and infectious fevers. Among the symptoms are loss of appetite, headache, coated tongue, nausea, vomiting, fever, constipation or diarrhea with greenish stools, tenesmus and scanty, high-colored urine. *Passive hyperemia* is a result of interference with circulation. It develops in valvular heart-disease, disease of the lungs or the pleura, or pressure upon the vena cava, as from tumors. The symptoms may be as above, plus those of the causative disease.

Liver
Inflamma-
tion

Inflammation of the Liver (Hepatitis) results from conditions and habits which cause pronounced toxemia, one of the duties of the liver being to assist in detoxifying the blood. Overwork, overeating, especially of rich foods, overdrinking, and constipation are the chief causes of liver inflammation. Sometimes these and other wrong habits of living will first produce a general disease, such as one of the acute fevers, in which the liver inflammation then occurs as a complication. The symptoms are those of active hyperemia, somewhat intensified.

Liver
Diseases,
Symptoms

Symptoms. The symptoms occur in two stages. In the first stage there is a gradual onset resembling acute catarrhal jaundice, but there is frequent vomiting. This stage lasts about five days and is followed by the second stage, in which there is a rapid development of severe headache, twitching of the muscles, persistent vomiting, more pronounced jaundice, small hemorrhages beneath the skin and into the mucous membranes, delirium, convulsions and coma. The pulse is rapid and the tongue dry. The temperature is variable, but if the case is to terminate unfavorably it becomes high toward the end. The duration of this stage is from

two to seven days. The urine is greatly diminished in amount and is stained with bile. There is obstinate constipation, the stools are offensive and often contain blood.

Chronic Liver Diseases. *Cancer of the liver* is the most serious affection to which this organ is liable. In addition to the general constitutional symptoms from which all victims of cancer suffer, there is jaundice, preceded by a tendency to biliousness, coupled in the region of the liver with violent pains which radiate to the small of the back and in some cases extend to the neck. It often is difficult to ascertain that the liver is involved, until the growth is well advanced. But such signs as emaciation, an extremely unhealthy appearing and yellow skin, loss of appetite, great thirst, when accompanied with what is described as a "liverish" tendency, should always be regarded as the precursors of a possible cancerous growth in this organ.

Liver
Diseases
Chronic—
Cancer

Cirrhosis of the Liver is an atrophic or "dried up" and hardened condition of the cells of the organ, almost invariably produced by an excessive consumption of alcohol. The liver eventually shrivels and decreases in size; thus the disease is easily recognizable. As in the case of other ailments of the liver, this disease is accompanied by a tendency to biliousness or jaundice, a dropsical condition of the abdomen and catarrh of the stomach and intestines. There also may be dry skin, loss of appetite, vomiting of the contents of the stomach and sometimes of blood. Usually there is some fever, and in the last stages of the disease perhaps delirium and coma.

Liver,
Cirrhosis of

Fatty Degeneration of the Liver. The liver in structure and function, like the heart, can be seriously impaired by a fatty condition of its cells. The symptoms are a generally obese condition, pallor of the stools, loss of appetite, vomiting and pain in the region of the liver on the right side. This ailment often is a consequence of overindulgence in sugar and sugar-forming foods.

"*Hob-nail Liver*" is a result of cirrhosis and is characterized by small flat protuberances resembling the heads of hob-nails, which may be felt on the surface of the liver. Cause, symptoms and treatment are the same as for cirrhosis.

Liver,
"Hob-
Nail"

Treatment. For most liver diseases the following treatment will prove effective. As soon as the acute symptoms begin to develop, whether the disease be acute or chronic, Complete Fast No. 3 should be immediately instituted, drinking freely of hot water with lemon juice, one half to one lemon in two or three glasses of water. The hot water and juice will help cleanse the stomach and upper intestines, especially if there is nausea but vomiting is difficult. Should vomiting occur it will be temporary, so cleansing will be that much quicker. Full enemas should be

Liver Dis-
eases, Treat-
ment

taken daily to cleanse the lower bowels. A hot or a warm abdominal pack also should be applied daily for one hour, though if there is much fever this may be changed to a cold pack. Bed rest will add to one's comfort. Plenty of fresh air is essential.

These measures will soon cleanse the alimentary tract and reduce the general toxemia so the inflammation may subside. After the acute symptoms have disappeared the fast may be broken by taking orange juice for one day and whole orange for another day, six or eight oranges a day being used.

Liver
Diseases,
Diet in

After this, Milk Diet No. 3 or fresh fruit juices and vegetable broth may be used, with as much lemon juice as desired in addition to one or two oranges daily. Often sour milk or skimmed sweet milk will agree better than whole sweet milk. If the patient cannot take milk, a diet of fruits and vegetables (mainly uncooked), almonds and ripe olives may be used until all functions are restored, after which other natural foods may be added gradually. As the patient gets better, whole fresh fruits with raw vegetables with some mild protein may be used.

Especial care must be observed not to overeat and plenty of water must be taken between meals. After discontinuing the abdominal pack, it would be well to take an alternate hot and cold sitz-bath daily for a couple of weeks. A vitality-building routine suited to the strength of the patient should be followed.

In chronic cases, in addition to the fast and the special diet, Special Manual Treatments 11 to 16 or Self-Applied Movements 1 to 6 would be of special advantage, though if the patients are not strong enough to recuperate quickly from these treatments, other treatments requiring less effort may be used.

Special Manual Treatments 1 to 10 and Self-Applied Movements 7 to 15 may be tried by the patient and the stimulation of the vital organs that would thus be brought about would be of material advantage. If these treatments do not seem to relieve the patient, then simply give the hot spinal pack during the morning of each day and the hot abdominal pack in the evening. As the patient improves in strength various exercises may be taken with benefit, such as are advised under the heading of Self-Applied Waist and Back, Leg and Spine Manipulations described in Volume VI.

An outdoor life with plenty of walking, except in abscess cases, is especially recommended, combined with a general vitality-building routine which includes air-baths, dry friction baths, electric light baths, sun-baths and other health-building measures.

Liver
Abscess and
Atrophy,
Treatment

In the treatment of *acute yellow atrophy* and *liver abscess* particularly, all feeding must be stopped at once and the stomach emptied by having the patient drink several glasses of water and then inducing vomiting. The bowels should then be cleansed with

a full hot enema and the patient allowed to rest for a time. Care must be observed not to overtreat, as strength usually is lost rapidly. After the patient has rested from the enema, a full hot-blanket pack may be given until free perspiration results. A cold towel should be kept on the head. After the pack is removed a quick cool sponge bath should be given. This will be sufficient treatment for the first day. Care should be observed to see that the patient is provided with plenty of fresh air.

On the second day and thereafter the treatment should be the same except that a hot abdominal pack may be given instead of the general body pack. If there is much fever and hemorrhage from the mucous membrane this pack should be changed for a cold one. If convulsions develop, either the hot-blanket pack or a hot immersion bath should be given. Not more than one of these hydiatric treatments should be given during any one day, however, if it can be avoided. But if there is much weakness, or if coma threatens, alternate hot and cold spinal compresses may be applied, making several changes.

As soon as the patient shows some signs of improvement fruit juices may be allowed and later the entire fruit. When appetite returns, milk may be added to the fruit, determining the quantity by the patient's ability to digest it. Use skimmed milk or butter-milk if it agrees better, and it often will.

LIVER-SPOTS (*Cloasma*).—A skin condition which derives its name from the liver-colored spots that characterize it, but which are in no way concerned with the liver. When they first appear, these spots or patches are yellow but gradually acquire a dark brown or blackish hue. When present in large numbers they often indicate a tumorous growth. They sometimes are congenital; again, they may appear during a pregnancy. In some cases they rapidly disappear, while in most cases they are as permanent as tattoo marks. No general treatment can be used with any assurance that the spots will be affected in the slightest. They may be undesirable blemishes in some instances, but usually it is best to leave them unmolested so far as local treatment is concerned.

Liver-
Spots

LOCKJAW (*Tetanus*).—An infectious disease characterized by tonic spasms of the muscles, especially those of the lower jaw, throat and face. The unusual symptoms are due to the toxins given off by the tetanus bacillus, which gains entrance through a wound or opening in the skin. The symptoms are much more likely to develop when the patient is in a toxemic condition, as the poisons of toxemia furnish food for the growth of the germs.

Lockjaw

Tetanus possibly may develop as a result of vaccination for smallpox or inoculation with various serums, because these injections furnish the germs with food as well as a wound through

which they can enter. Prevention is highly important for this disease. All wounds should be promptly cleansed and properly cared for and the patient should live rightly in every respect so as to maintain a high vitality and resistance.

Lockjaw,
Symptoms

Symptoms. The symptoms of this disease usually develop from eight to twelve days after infection. It is rare under five days, but on the other hand cases are known to develop from 100 to 200 days after infection. In the beginning there may be some rigidity, twitching, irritability, spasm and pain in the muscles near the point of infection before the characteristic symptoms appear. There sometimes is a soreness of the throat, some difficulty in swallowing and a stiff neck.

After this appears the spasm, the principal symptom of the disease. It consists in stiffness and tenseness of the muscles of the jaw, *sometimes making it impossible to open the mouth*. This stiffness and spasm extend to the back of the neck and later affect the abdominal muscles. The muscles of the jaw give the sufferer a grinning, sardonic expression, the so called *Risus sardonicus*. There also are a rise of temperature and profuse sweating. The spasms become "tonic" or continuous and cramplike, all the affected parts becoming as rigid as iron. This extreme tension causes excruciating pain. The eyes are partly closed, the forehead wrinkled and the head more or less retracted. While the spasm persists all of the time, it becomes greater from time to time in paroxysmal attacks, with increasing pain. These are brought on by movements, by sudden noises and sometimes from no apparent cause. All this time the mental condition may remain perfectly clear.

In favorable cases the paroxysms begin to diminish in force and frequency and the tonic spasm slowly passes away. In unfavorable cases the paroxysms and the rigidity increase in severity, the pulse remains rapid, the temperature is high but irregular and death may occur from exhaustion, asphyxia or heart-failure. It usually takes place within seven days. The mortality from this disease is placed high. In the cases which recover the affected muscles, especially those of the jaw, may remain stiff for long periods.

Lockjaw,
Treatment

Treatment. As the symptoms of this disease are violent, prompt and vigorous treatment is necessary. The patient has an advantage when the symptoms come on gradually, as proper treatment will often head them off. In any case, Complete Fast No. 3 should be immediately instituted at the first sign of trouble. Hot water should be taken until fever develops, after which it should be cool. The same applies to the enemas, though the temperature should not be lower than 70 degrees. If it becomes impossible for the

patient to swallow, enemata may be given, the water of which should be retained. Rest in bed in a quiet room is important. Plenty of fresh air should be provided; but the patient should be shielded from drafts, as these sometimes incite the muscular spasms. Medical treatment for tetanus usually includes serum inoculation.

On the first day a full hot-blanket pack may be given, to induce abundant perspiration, or a neutral bath (98 to 100 degrees F.) for an hour or more, drinking freely of water while in the bath. Thereafter, if fever develops, the cold wet-sheet pack or a neutral bath may be used instead, the former for as long as two hours. If the fever becomes high it should be continuously repeated at intervals of one or two hours. If this treatment seems too strenuous for the strength of the patient, the packs should be limited to the abdominal regions. Between packs, if the muscular spasms and pain are severe, hot spinal compresses may be applied for as long as thirty minutes. In the milder cases some of the Head and Neck, Back and Shoulder Movements described under Special Exercise Treatments in Volume VI, may be given during the morning and the general body pack in the afternoon.

Lockjaw,
Termination of

The fast should be continued until all the symptoms subside, after which an appropriate fast-breaking routine should be employed, then Milk Diet No. 1 or unsweetened grape juice and a grape diet until recuperation. The milk aids the body in rapidly making good blood, hence increases vitality and resistance. As soon as the fast is broken a vitality-building routine suited to the strength of the patient should be selected and changed to a more strenuous one as soon as the strength is improved.

LOCOMOTOR ATAXIA (*Tabes dorsalis*).—An affection due to degeneration of certain portions of the spinal cord and producing a gradual loss of control over the muscles which govern locomotion. Walking no longer becomes automatic but necessitates a direct effort of will and concentration; and when the eyes are closed marked difficulty is experienced in maintaining an erect carriage; the sufferer cannot walk in the dark. It is far more frequent in males than in females, the proportion being about ten to one. It usually appears sometime between the ages of 25 and 45.

Locomotor
Ataxia

The cause is said to be syphilitic infection. The symptoms usually appear at six to fifteen years after acquiring syphilis. Not all cases of syphilis are followed by locomotor ataxia, however, probably not more than 5 per cent. are so affected. Some of those having shown no symptoms of syphilis beyond the primary or initial lesion, yet who at once went through the usual course of suppressive treatment, have developed locomotor ataxia as early as those who had the medication only after the disease had existed for some time and in whom later symptoms had developed.

Locomotor
Ataxia,
Symptoms

Symptoms. The symptoms which precede this nerve degeneration are pronounced neuralgic pains in the limbs, of brief duration, girdle pains and a sense of constriction, temporary visual defects, occasional abdominal pain, swollen knee-joints and a tendency to obstinate constipation varied by brief attacks of diarrhea. Impotence is common.

With the development of the disease difficulty in walking increases. The gait of sufferers from this disease is characteristic in the ataxic stage. The patient walks bent forward and usually uses two canes for support. In stepping out the foot is raised high and then thrown forward suddenly and forcibly and slapped on the ground, the knees being overextended (bent slightly backward). The patellar reflex (see *What the Physical Examination Reveals*, Vol. VII, Sec. 1), is lost, the leg hanging still when the patellar tendon is struck, instead of kicking forward, as it normally does. The pupils accommodate to distance and near vision, but do not react to light (the Argyll-Robertson pupil or symptom). There often is a loss of feeling in the soles of the feet, the patient while walking having the sensation of having pads under the feet. Then the arms become affected, partial paralysis follows, the eyesight becomes greatly impaired, and the sufferer becomes completely bedridden. The disease is chronic, lasting for ten to fifteen years.

Locomotor
Ataxia,
Treatment

Treatment. This is distinctly a constitutional disease. Practically all treatment must be devoted to one purpose—adding to the general vital vigor. Where the disease has progressed to a great extent it is incurable, as a rule, though under proper treatment there may be great improvement. However, many cases have been reported that might reasonably be termed well advanced, in which a great improvement by natural methods was finally effected. Therefore, a patient should not give up hope even though he feels that his disease has been firmly established. He should begin the treatment with the feeling that he is going to “get well” and that even if he does not entirely recover, he can depend upon at least a fair degree of improvement.

Fasting must be used with considerable care in this disease. An extended fast has been productive of benefit in some cases, though usually it may be regarded as a risky mode of treatment. What is needed in this disease is more vitality, so this aim should be kept continually in view. If not possessed of excess weight, Complete Fast No. 2 for two to seven days would be advisable, then using Fast-Breaking Routine No. 1. If Milk Diet No. 1 seems to be agreeable and a sufficient quantity of milk can be taken to bring about a material increase in weight, it will be of great value.

If, however, the milk causes diarrhea or if only a moderate

quantity can be taken, the general diet suggested in the fast-breaking "A" routine may be followed for at least a few days. Any one of the milk and fruit diets that the patient prefers, provided it is found to agree with him, would be of considerable value. Combination Milk Diet No. 2, 3, 13 or 17 also would be worth a trial. The short fasts are repeated every three or four weeks. Many cases will find alternate Fast No. 5 of much value, particularly if milk is used between fasts. Often the milk diet after each successive short fast is productive of better results.

Special Manual Treatments 11 to 16 will be of especial value in this ailment. In the proper treatment of this disease an assistant is really necessary to bring about most satisfactory results. Treatments 1 to 10 may be used provided 11 to 16 prove to be too vigorous. The assistant should also go over all the affected parts of the body, moving the joints, with relaxed muscles, in all directions as directed in the Special Exercise Treatments, in Volume VI.

Provided any sense of pain is always regarded as a warning and no movements are given which cause serious discomfort, there is little danger of the patient being injured by these movements even though they should be incorrectly performed. A slight feeling of discomfort should not suggest the necessity of stopping the movements; but where there is distinct pain this is a warning that should be heeded. The ankles should be turned in every normal direction, thus bringing into thorough activity all the muscles and ligaments in the region of the calf and the ankle. In fact, all parts of both legs should be thoroughly stretched and manipulated in this manner. All spinal stimulation is of special value, so the Back and Shoulder movements especially advised for increasing spinal vigor should be used.

If the application of heat to the spine is productive of great discomfort, this phase of the treatment should be avoided. This will occur only in a rare case. Air-baths, dry friction baths, and sun-baths are all of great value. The patient should walk each day until there is some degree of fatigue. The idea should be gradually to increase the distance walked as strength is gained. Exercise is most important. Suitable retraining exercises are of the greatest value.

Among the best are touching the toes to certain spots in all directions on the floor, first while seated, then while standing; placing the heel in successive notches in a board placed horizontally, while seated on a chair; walking a zig-zag line on the floor, one foot on each side of the line; walking up and down the room, stepping in squares, oblongs or ovals; climbing stairs (with hand-rails), putting the feet in foot-shaped depressions especially made in boards placed on each step.

Locomotor
Ataxia,
Manipula-
tions in

Locomotor
Ataxia, Re-
Training
Exercises in

LORDOSIS.—See *Spine, Diseases of*, page 3689.

LOSS OF APPETITE.—See page 2880.

LOSS OF HAIR.—See *Alopecia Areata*, Vol. VII, page 3135; and *Hair, Diseases of*, page 3384.

LOSS OF HEARING.—See *Ear, Diseases of*, Vol. VII, page 3308; also *Eustachian Tube, Diseases of*, page 3332.

LOSS OF MANHOOD.—See page 1892; also see *Impotence*, on page 3439.

LOSS OF MEMORY.—See pages 3136, 3149.

LOSS OF NAILS.—See page 3539.

LOSS OF SIGHT.—See *Eye, Diseases of*, page 3335.

LOSS OF TEETH.—See *Teeth, Care of*, Vol. V, page 2194; also *Toothache*, page 3744.

LOSS OF VITALITY.—See page 2862.

Loss of
Weight

LOSS OF WEIGHT.—A sudden or acute loss of weight is often associated with acute disease. Loss of weight is especially marked in cases of diarrhea and in dysentery, because of the loss of water. If disease is properly treated and a correct diet followed thereafter the weight is soon regained.

If the loss of weight occurs without apparent cause, there is a possibility of diabetes. An examination of the urine will determine this. If the urine is normal a blood test should be made, possibly for diabetes and for anemia. Some cases may require further examination. There may be a beginning tuberculosis. Worry, grief or other mental stress, and hyperactivity of the thyroid and other ductless glands, are often causes which interfere with appetite and digestion. (See *Emaciation*, also *Gaining Weight* in Volume II.)

Loss of
Weight,
Treatment

Treatment. While it would seem that a patient who suddenly begins to lose weight would be in need of food, just the reverse is often true. Such a loss usually does not occur unless something is radically wrong with the body.

As a general rule it is well to limit the diet to fresh fruit while the cause of the loss of the weight is being ascertained. The fast, or the diet thereafter and the balance of the treatment will depend upon the cause of the loss of weight. In most cases the fast would not continue longer than three to seven days. The milk diet thereafter would most likely produce a gain. The general vitality-building routine suited to the strength of the patient can always be employed. Often, a sudden loss of weight has been proved due to a collapse of the normal balance of chemical ingredients of the blood. This cause will demand specialized accuracy of search and therapy.

LOSSES, NIGHT.—See *Seminal Losses*.

LUES.—A euphemistic (non-offensive) name for syphilis, formerly meaning a pestilential disease. See *Syphilis*.

LUMBAGO.—An inflammatory affection which attacks the tendinous attachments of the muscles of the lumbar region. It may be caused by indirect injury from sudden severe muscular exertion, from strain, or from exposure to colds, drafts, or wet. The onset is sudden. The symptom which characterizes it is acute rheumatic pain which precludes all movement and which effectually prevents the sufferer from standing erect.

The pains of lumbago often appear before the onset of an infectious condition. When an attack develops suddenly after exposure or cold, the ailment, except as an indication of a toxemic condition of the blood or of a weakened condition of the general muscular system, is without significance and rapidly yields to sensible treatment. It usually lasts but a few days, though occasionally it may be much more protracted.

Treatment. As a rule, hot spinal packs will bring about a decided change for the better within a short time. Following these packs, in acute attacks, a hot hip pack may be given. Should this not bring good results then a hot abdominal pack may be used. In connection with these methods, the patient should be encouraged to drink freely of hot water, and should use an enema to cleanse the colon. In many instances the patient will so far recover as the result of these simple measures that he can go about his ordinary duties the next day, or in a few days at most. Infra-red or radiant light and heat, and specific manipulative treatment, also zone therapy usually will be valuable.

One must be careful about diet when suffering with this disease. Complete Fast No. 2 may be advantageously continued while the acute symptoms remain. Milk and Fruit Diet No. 1 or 3 would be of advantage afterward.

If Special Manual Treatments 11 to 16 are taken each day as one begins to acquire ordinary vitality, they will speed recovery



Wire spring clothespins may be applied as shown to counteract pain. (See *Zone Therapy*, Vol. VI, page 2787.)

Lumbago

Lumbago,
Treatment

and help materially in warding off future attacks. Of course, a general vitality-building routine should be adopted.

Lungs
Diseases

LUNGS, DISEASES OF.—See also *Cold, Cough, Pleurisy, Pneumonia* and *Tuberculosis*. The acute diseases of the lungs are all inflammatory in nature. Since the lungs are, in part of their functions, eliminatory organs they are frequently called upon for extra elimination when the body is in a toxemic condition. The chief acute affections to which they are liable are pneumonia and pleurisy, though acute tuberculosis and abscess sometimes occur. For full discussion of these, see proper headings. In addition to these common diseases, these organs are liable to many forms of degeneration.

The most important and serious ailment to which the lungs are liable is tuberculosis or phthisis, which may be acute or chronic.

Lungs,
Dropsy of

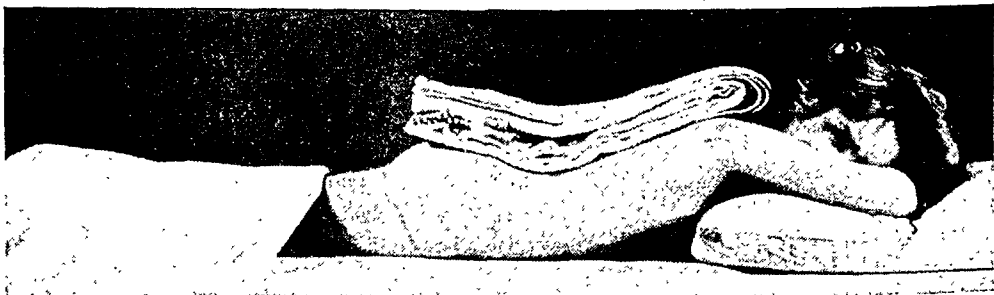
Dropsy of the Lungs (Pulmonary Edema) is a dangerous condition in which both the air cells and the air vesicles are filled with serum, the fluid base of the blood, which transudes from the capillaries into these portions of the pulmonary structure. The symptoms which indicate this condition are great difficulty in breathing, almost amounting to suffocation, a rattling sound in the chest, distended venous circulation and a short, frequent cough with expectoration of a thin frothy fluid, occasionally bloody. However, there may be no expectoration.

Pulmonary edema usually is a result of heart-failure, so efforts should be directed toward improving the condition of that organ. It often ends in death from suffocation.

Emphysema of the Lungs is described under *Emphysema*.

Lungs,
Gangrene of

Gangrene of the Lungs is a pathological condition in which portions of lung tissue die and decompose. This gangrenous condition may develop as an after-effect of an acute pulmonary affection, such as pneumonia or bronchial catarrh, or it may originate from foreign bodies entering the windpipe, from plugging of a pulmonary artery or from direct injuries to the lung, for example, a gun-shot wound.



Congestion of the lungs and inflammation of the chest and abdomen indicate the application of the cold compress. After applying the compress as here shown, the patient should be thoroughly covered.

Before gangrene appears fever always is present. There is much difficulty in breathing, the breath is exceedingly foul, and the sputum expectorated is dark colored and putrid smelling—so much so that the surrounding atmosphere is contaminated. The general health of the sufferer will determine the possibility of recovery. Those of advanced age quickly succumb.

Treatment. Dropsy of the lungs and gangrene of the lungs both may be treated by the same methods. The cure of these complaints depends upon the stimulation of the depurating or purifying organs with a view to hasten the processes essential to their cure. The outdoor treatment is extremely important, so if the patient cannot be kept out of doors all of the windows in the sleeping room should be kept wide open at all times, maintaining warmth, if necessary, by hot-water bottles and coverings.

Lungs Dis-
eases,
Treatment

If the patient possesses a great deal of vitality, Complete Fast No. 2 may be continued for several days. Whereas if the vitality is low, a short fast, say of two or three days, using water freely in accordance with the desire of the patient, would be of value, followed by Milk Diet No. 1 or fruit juices and vegetable broth.

Wet-sheet packs would be of great value if the vitality is sufficient to react properly. Otherwise Special Manual Treatments 1 to 10 may be used, followed by a hot spinal pack. In the afternoon or late in the evening a hot abdominal pack may be used. Take every possible care to maintain activity of the bowels, using a moderate, cool enema each day if needed. Make this enema just as small as can be to produce the desired results. A full enema under such circumstances might so reduce the vitality as to hasten the approach of serious symptoms or death.

It probably would be safe to continue on a milk diet or fruit juices and vegetable broth until the patient recovers and normal weight is regained, then a fresh fruit and raw vegetable diet with a small amount of milk and a light protein.

As soon as strength permits, a general vitality-building routine should be adopted. (See *Pneumonia* for further suggestions along the line of constitutional treatment.)

LUPUS.—A tuberculous skin disease, which usually appears on some portion of the skin exposed to air and light, especially the nose, the lips and the cheek. It is said to be contracted, in the great majority of cases, from external infection; but it may be conveyed to the skin also from tuberculous conditions of the glands, bones or mucous membranes.

Lupus

This ailment is unaccompanied by any pain. In its first form it appears as a simple gray-red spot or nodule which gradually softens and becomes an ulcer. As a rule the first ulcer heals by the formation of a scar; but other nodules and ulcers continue to break

out on its margin. They resemble granulating wounds and generally are covered with dark crusts beneath which the ulcerating surface is red, moist and bleeding easily. Lupus also appears on the mucous membrane, especially of the nose.

Lupus,
Treatment

Treatment. Treatment should begin with Complete Fast No. 3, continued for three to ten days, then using Fast-Breaking Routine No. 1. Milk Diet No. 1 would be beneficial, but if it cannot be adhered to, then use Milk Diet No. 11. The next best diet thereafter would be a choice from Milk and Fruit Diets Nos. 1 or 3, depending upon the patient's appetite. In some cases a long fast may be necessary in order entirely to remedy the disease. Complete Fast No. 2 continued for seven to ten days if weight and general condition permit, or Alternate Fast No. 5 if necessary, may accomplish what a single short fast would fail completely to do. It should be combined with wet-sheet packs, occasional steam baths and a strict outdoor life. Activity of the bowels is important, so if necessary should be insured by the use of enemas. Ultra-violet ray treatment should be given every other day close enough to cause moderate sunburn.

Special Manual Treatments 11 to 16 or Self-Applied Exercise Movements 1 to 6 may be taken each morning, though not more than one series of movements at a time. Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be taken at night before retiring. These treatments are suggested only when enough vitality is possessed to perform vigorously the movements illustrated therein. If the patient is rather weak, then Special Manual Treatments 1 to 10 would be recommended instead. Select a vitality-building routine, adapted to the patient's strength. Remember that the object to be kept in mind continually while treating this disease is the building of vital or nerve power and the purification of the blood-stream. Light-therapy often proves effective. (See *Sunlight a Foe to Disease* and *Sun Treatment by Artificial Means*, Vol. VI, Secs. 4 and 5.)

LYMPHADENITIS.—See *Glands, Inflammation of*.

Lymphatic
Diseases

LYMPHATIC DISEASES.—*Lymphangitis* is an acute or chronic inflammation of the lymph vessels, generally associated with an inflammatory condition of the glands. Bubo is an example.

Lymphangitis follows infection from wounds or bruises. As the reader has learned in Volume I, the lymph glands are the first bar to the progress of antagonistic foreign matter picked up and carried inward by the lymph current. Tenderness, swelling and pain result. In lymphadenitis there are heat, redness of the skin and swelling. If the process runs on to suppuration the symptoms of ordinary abscesses ensue. Lymphangitis often begins with a chill or rigor followed by vomiting, diarrhea and high fever.

Treatment. Lymphangitis, when the result of a wound or a bruise, requires attention to the injured part to allay the inflammation. Whenever possible this part should be elevated. Fomentations, as hot as can be borne, should be applied to the affected region. Constitutional treatment also should be given. A hot-blanket pack should be given upon the appearance of the chill and later cold wet-sheet packs to combat the fever. Massage and hyperemia are of great benefit, but neither must be overdone.

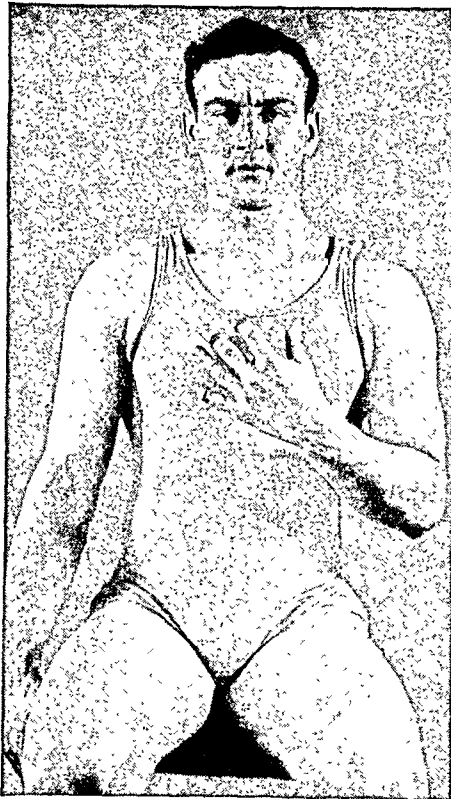
The patient should drink water in large quantities. Activity of the bowels should be insured by enemas, hot in the beginning and of a neutral temperature later.

A full supply of fresh air is essential. The patient should fast during the acute stages, thereafter either adopting a milk diet or returning to the use of ordinary foods as suggested in the fast-breaking routine adapted to the length of the fast.

The same treatment applies in the case of acute *lymphadenitis*; but in chronic inflammation of the glands a general vitality-building routine should be adopted and adhered to. In the latter case a limited diet for a period of some weeks may be advocated; but usually a short fast followed by the milk diet will bring quicker results. Ultra-violet light is a constructive therapeutic agent also.

LUXATION.—See *Dislocation* under *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

MALARIA (*Malarial Fever, Marsh-Fever, Ague*).—A febrile disease the more virulent forms of which are engendered in the tropics, but which in its milder aspects is common in temperate climates. The name is derived from Italian *malo*, bad, and *aria*, air, referring to the old theory that the disease was due to noxious emanations associated with bad air, especially “night air.” The cause of the disease is said to be a malarial parasite introduced into the blood by a species of mosquito, the *Anopheles*. The female



Elastic bands as shown here applied to fingers, also may be used elsewhere, when applicable, to relieve pain. (See *Zone Therapy*, Vol. VI, page 2787.)

Lymphatic
Diseases,
Treatment

Malaria

of the species is the blood-sucker. These mosquitoes do not fly far from their breeding grounds, although they may be blown some distance by strong winds. The insect breeds in small stagnant puddles and in slowly moving streams. Its activities seem to be confined to the night.

The common, non-malarial mosquito, called the *Culex*, is the species found so much in and about houses. It may be distinguished from the malarial mosquito by the fact that when resting one pair of its legs is elevated above its body, which is in a horizontal position, while the *Anopheles* supports itself by all three pairs of legs and the body slopes at an angle of about 45 degrees, head downward. Malaria may be found in almost all parts of the world where warmth and water co-exist. There are several types of malarial fever, such as intermittent, remittent, pernicious, and chronic.

Malaria,
Symptoms

Symptoms. In the *intermittent* type the attack comes on at certain regular intervals, which may be once every 24, 48 or 72 hours, or longer periods. The symptoms of this ailment are a rapid rise in temperature, chills and shivering, chattering of the teeth, headache, profuse perspiration, with muscular aching over the whole of the body. The attack varies in length from a few hours to a day. The severity of the symptoms always subsides when the patient commences to sweat. During the intervals between the attacks there usually are no symptoms, except some weakness.

In the *remittent* type irregular fever occurs with remissions and paroxysms. The *pernicious form* is rare except in the tropics. It is a serious type and frequently is fatal.

Later, malaria may become chronic, the attacks occurring at irregular intervals and the general constitution becoming undermined (*malarial cachexia*). In the latter case paralysis of the heart, dropsy or hemorrhage often leads to a fatal termination.

Quinine generally is regarded as a specific for malaria and the only remedy of value; but experience proves that in malaria, as in all other ailments of a subacute or chronic nature, treatment by constitutional measures also is necessary.

Malaria,
Treatment

Treatment. Remember that this is a constitutional disease. More malaria exists in swampy countries than in the high lands, so the tendency toward ill health is naturally stronger when one is in a climate where the air has no stimulating qualities. But one can be cured of malaria if he will follow the proper routine and treatment. The natural treatment of this disease has as its aim assisting the body in its eliminative efforts; hence the method of treatment is the same regardless of which variety or form of malaria is present.

As soon as the premonitory chills are felt, Complete Fast No. 3

should be immediately instituted, drinking freely of hot water and taking a full hot enema. After a rest of an hour, if the chills continue, a hot-blanket pack should be taken, to produce free perspiration. An abundance of fresh air is necessary at all times. When the treatment is taken promptly it is not likely that much fever will result. If it does, however, the drinking water may be changed to cool. If chills recur in the same day it may be changed back to hot and hot-water bottles may be placed about the body until the chills subside, but no further packs should be given.

Malaria,
Hydro-
therapy in

On the second day, whether or not the fever is present, a cold wet-sheet pack should be given. If chills recur the hot-blanket or sheet pack should be given daily. The temperature of the drinking water is to be regulated according to the sensations of the patient. The enema on this and the succeeding days may be smaller, but still be large enough to be fully effective.

On the third day, if the symptoms have not subsided, the same treatment as advised for the second day may be repeated. Even if the symptoms have subsided, it would be well to continue the fast for five to seven days, to give the body every opportunity to eliminate the parasites. The only exception to this would be in the case of children, or patients who have had malaria for some time but have not taken the proper treatment and consequently have become considerably weakened. In these cases, after the fever is gone, fruit juices may be taken for one day and the whole fruit on the following two days.

In all cases, after the fast or fruit diet, Milk Diet No. 3 should be used, continuing for four to six weeks, even though the patient seems to have entirely recovered before that time. Such a diet of milk continues the eliminative processes and helps to increase vitality and resistance. If in a tropical climate where a satisfactory milk supply cannot be obtained, the next best diet would be one composed largely of raw foods—fruits, vegetables and nuts—with plenty of water between meals.

If the symptoms should recur after eating has started, the fast should be immediately resumed and the treatment already described should be repeated. This treatment may have to be repeated a couple of times in severe cases. Even if there is no recurrence of symptoms, it would be well after eating has been started to take some form of sweat bath every second day for a week and twice a week thereafter for several more weeks. Hot spinal compresses, with spinal exercise treatment in accordance with the strength of the patient, may also be employed daily during this period. When acute symptoms are absent the appropriate vitality-building routine should be followed persistently, giving special attention to sun-baths, cold baths, fresh air and long walks.

The most careful attention should be given to all sanitary measures in order to prevent, as far as possible, reinfection, and all living quarters should be screened during mosquito season, in regions where these insects abound. The increased health resulting from right habits of living will act as an added prevention; but, nevertheless, sanitation should not be neglected. (See also *Tropical Diseases*.)

Mammary
Abscess

MAMMARY ABSCESS (*Abscess of the Breast*).—It is most frequently a complication of the condition known as “caked-breast,” where there is retained secretion. But it may result from infection through a crack or a fissure in the nipple, or from injury when the body is in a toxemic condition. It is especially likely to occur during the nursing period. The treatment is the same as for any other form of abscess. (See under the headings *Breast, Inflammation of*, and *Abscess*.)

Mange

MANGE.—A common name applied indiscriminately to scabies and other parasitic afflictions, which may be transmitted from animals to man. (See *Itch* for treatment.)

MANIA.—See *Insanity*.

MARSH-FEVER.—See *Malaria*.

MASTITIS.—The technical term for inflammation of the breast. (See *Breast, Inflammation of*.)

Mastoiditis

MASTOIDITIS.—Inflammation of the cells of the mastoid process located behind the ear. Mastoiditis is practically always a complication of neglected or improperly treated inflammation or abscess of the middle ear. It is due to the same cause as the ear trouble, namely general toxemia, and is sometimes complicated by infection. Every effort should be made to avoid mastoiditis by promptly and properly treating any ear inflammation which may develop.

Symptoms. There are fever, local pain, tenderness on pressure, swelling of the ear canal and of the parts above and behind the ear. These symptoms point to suppuration with retention of pus in the mastoid antrum. If the pus can escape into the tympanic cavity these symptoms may not appear; but if it cannot escape it remains in the mastoid cells, which become softened and broken down. If proper treatment is not instituted the pus may work its way into the interior of the skull and set up a meningitis. If proper treatment is begun at the first appearance of trouble there usually will not develop a severe mastoiditis.

Mastoiditis,
Treatment

Treatment. Owing to the difficulty in securing drainage from the mastoid process and to the possibility of the brain becoming infected by the inflammation, an operation is usually advised for mastoiditis. However, it is well to employ natural methods first in an effort to avoid the operation. Even if an operation is performed, the natural treatment will still be required in order to

remove the constitutional causes of the trouble. Treatment is the same as for an acute inflammation of the ear. (See *Inflammation of the Ear* under *Ear, Diseases of*.)

MASTURBATION (*Self-Abuse; Secret Vice*).—Masturbation is the act of producing a sexual orgasm without sexual intercourse, and (in the male past puberty and in some females) a discharge from the sexual organs by manipulation or friction. It is one of the most common practices among young persons. Generally it is acquired at about the age of puberty or even a little before that period. It often is practiced also by very young children, having been taught them by depraved nurses or by older children, or occasionally learned by accident. Older boys and girls acquire the habit usually through sexual awakening, or by being taught by some chum addicted to the practice. Before they learn its harmfulness and therefore before understanding that it is an enervating habit, these young people may suffer from the physical weakening and nervous disorders that sometimes follow its indulgence.

Men and women who masturbate are actuated by many reasons. It may be just the continuance of an early acquired practice; it may occur in unmarried or widowed persons who are deprived of normal intercourse; it also may occur in married persons whose mates, either from illness or some other condition, are unable or unwilling to perform the connubial act; it may occur in persons who have some abnormal condition of the sexual organs, producing constant irritation; it may be induced by abnormal sexual desire, etc. But whatever the cause, apparently no habit takes a stronger hold upon some persons.

Not infrequently masturbation is observed even in infants of both sexes. In such cases it is due to the irritation produced by impure secretions which, through a lack of cleanliness, have accumulated about the parts. In some cases circumcision in the case of males, or an allied operation in the case of females when there is a redundant fold of skin over the clitoris, may be desirable as an aid in overcoming the habit. But cleanliness alone often is all that is needed. Sometimes, however, some form of mechanical restraint will be necessary. Tying the hands often is resorted to.

But aside from all of the causes mentioned above, it may be stated that the habit may be acquired innocently through excitement which may follow touching the organs with the hands. Thus children discover that manipulation produces a pleasurable sensation. Not knowing just what it really means and recognizing only the pleasurable sensation, they resort to this practice frequently; in fact, some young children can be detected handling themselves almost constantly. Should this not be discovered by the parents or the nurse and the child made to discontinue the

Masturba-
tion

Masturba-
tion, In-
fantile

practice, a more or less constant or chronic congestion of the parts will occur in the course of time, with a consequent ever increasing desire to produce the sensation.

It is certain that the chief reason for children acquiring the habit is ignorance, due to the prudery of the parents. Those children who are mentally deficient or unsound, it is said, are especially inclined toward this practice and that often this is the first symptom of mental derangement. In other words, that the practice is the result, and not the cause, of insanity. This may be true; but at the same time it is also true that in the majority of cases it is practiced by those who are normal in other respects. But the parents' mysterious secrecy and prudery upon all subjects related to the reproductive function and the shirking of their duty toward their children in the matter of proper instruction on matters of sexual hygiene should be held to be the real reason for the prevalence of the habit in children.

In many cases, irritation and false sexual excitement due to constipation is an active factor in causing the habit, and in making it difficult to break. A diet rich in stimulating foods, especially meats, sugars, spices, condiments, coffee and alcohol, tends to perpetuate if not to cause the practice.

Masturba-
tion,
Effects of

Both mind and body suffer from the effects of long continued and frequent masturbation, so it is a question as to which suffers the greater injury. The practice frequently robs one of his manhood or womanhood and makes one more or less unfit for the duties of life. If persisted in it may end in some sort of breakdown. It causes oversensitiveness of the sexual parts, a more or less permanent irritability of the urethra, prostate and other organs. Among the conditions it frequently causes in various individuals are chronic prostatitis and hypertrophy of that organ later in life, weakness of the bladder, seminal losses on the slightest excitement, chronic spermatorrhea, prostatorrhea and a general weakness of the nerves, muscles and tissues of the generative system. As a result there develops prematurity or impotence, partial or complete.

The constitutional and mental results may be serious. The eyes become sunken, the skin pasty, sallow, sometimes subject to acne or pimples, the hands are cold, clammy and lose their energetic grip, the appetite begins to fail, stomach and bowels lose their normal functional power, there are indigestion and constipation and the muscles become flabby and soft.

The confirmed masturbator becomes confused of thought, mentally sluggish and stupid, morbid and melancholy, shy and lacking in will-power and in concentration, with a failing memory, a loss of ambition and a tendency to shun the society of his fellows

and especially of those of the opposite sex. He instinctively recognizes his own unfitness and he sheepishly shrinks from the steadfast gaze of healthy, normal young womanhood, often manhood also. As time goes on the victim of this vice is liable to various maladies, particularly nervous disorders. In many cases, too, this habit paves the way for tuberculosis and other wasting diseases which finally carry the victim to an untimely grave.

Of course, these extreme results do not follow in all cases; in fact, they develop in but a small percentage of the cases. But they do follow in some, while in most cases the habit has a detrimental effect, depending in extent upon the length of time, the frequency with which it has been practiced and the age at which it began.

Physicians and physiologists state that, for a longer or a shorter time, practically every youth has this practice. If it were totally destructive of body and mind the human race soon would become extinct, especially since a large number of girls and women also have the habit. If the habit is abandoned before the sexual power is lost, the fitness of the victims for parenthood is not lessened, nor does it affect the offspring of one formerly addicted to the practice.

Every child should be made aware of the dangers of this practice and should have them explained to him or to her in such a manner as to make a strong appeal. Stories of the possible serious results which will happen to an addict must be set forth in a manner not to frighten the boy or girl unduly. Stories of this kind sometimes make such an impression on the young mind as to produce great harm, for children are impressionable and may become unduly depressed or secretive, morose and moody. But proper, sane explanations and heart-to-heart talks by the parents will accomplish wonders.

The present generation is a wise one; the children of today are said to know as much as, and sometimes more than, their parents. But what they know probably has been taught them by other older children, or by older depraved persons. Why not teach them in a proper manner and at a proper age! The most serious thing which can happen to a growing boy or a girl is to be left in ignorance of matters relating to physical development, adolescence, the hygiene of sex and the awakening of the sexual instinct, only to have him or her learn all these things in an unnatural and surreptitious manner.

Parents have a great responsibility. They may not realize it. From false modesty and prudery, they may hesitate to speak of these matters to their children; but it is very necessary that they should. In these days much is learned early in life by the rising

Masturbation, Professional Attitude toward

Masturbation, Parents' Responsibility for

generation. Often well-meaning parents find themselves much too late in their attempted education. How much better for the parents to teach it in the right way, to warn against the perils of these sexual abuses, rather than to have the information come from some chum or companion who, far from giving a warning, is much more likely to be the one to expand upon the pleasure and gratification of the practice and to suggest or even instruct in its accomplishment!

This practice, started innocently enough, sometimes becomes a disease—in any case a product of prudery. This perverted habit sometimes may be due to bad inheritance, but as it is so nearly universal it cannot be laid to that in most cases. It also is induced by unwholesome environments and the failure of parents and teachers to warn the young against the danger of the habit. Masturbation frequently obtains such a hold upon its victims that it is extremely difficult for these to release themselves.

Masturba-
tion, Treat-
ment

Treatment. In trying to effect a remedy for this practice a proper mental attitude first of all must be created. The victim must be made to recognize the serious character of his habit. He must be taught the value of manly characteristics and that the continuance of the habit may prevent him from attaining superior, self-respecting manhood. (See *Sexual Dreams and Masturbation*, Vol. IV, Sec. 6.)

Simultaneously, the environment and habits of life should be made to contribute toward physical wholesomeness. Exercises and games of all kinds must be encouraged. Though treatment herein refers to the male, exactly the same vitality-building measures advised may be used with just as much advantage and benefit by the other sex.

Masturba-
tion, Exer-
cise to Help
Discontinue

Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 18 may be given each morning on arising, provided the patient possesses average strength. Following these treatments a dry friction bath should be taken, using a friction brush or a rough bath towel. After this should come a cold bath—a shower or plunge in a tub, or, better still, a lake or a river when possible. Do not avoid the cold bath because of winter weather. Of course, the bathroom should be comfortably warm. After the bath additional exercises may be taken, especially a brisk walk and short runs.

The patient should take air-baths at every opportunity, likewise sun-baths. Long walks continued until a feeling of fatigue is felt are excellent. If the patient is able to walk for five, ten or fifteen miles, or even more, the exercise will be greatly to his advantage. Remember that the fight is for physical wholesomeness—for the strength which gives one normality. When the physical instincts return to normal the patient may rest assured that his harmful habit

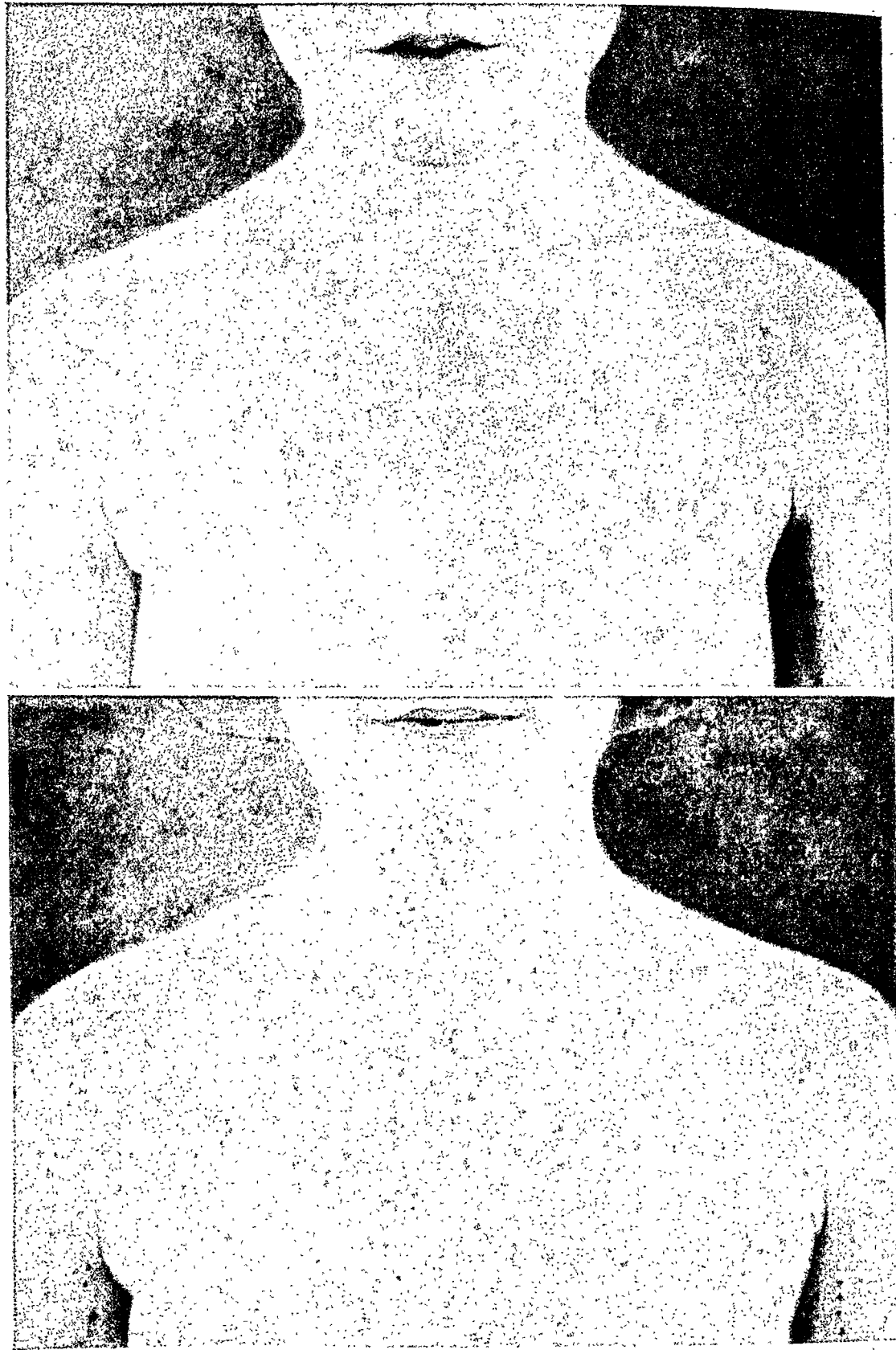


PLATE 105. In common measles (upper figure) the eruption is of deep color, is crescentic in shape and lasts longer than that of German measles (shown in lower figure).

will disappear. *Avoid the solitude*, the desire for which often is associated with this habit. The patient should be alone as little as possible, and should make friends among both sexes.

A wholesome diet is essential. In some instances it is a good plan to follow a limited diet for a few days. For instance, Limited Diet No. 1, 5 or 8 may be used. But if by so doing there is a material decrease in strength it should be discontinued. If, however, there is no decrease in strength, but an increase in endurance, the reduced diet may be continued from seven to fourteen days to advantage. A greatly improved appetite will follow and there will be better digestion and assimilation.

Be careful thoroughly to masticate all food and to avoid eating beyond digestive capacity. Following the limited diet, Combination Milk Diet No. 2, 3 or 19 may be observed in accordance with the dictates of the appetite; that is, use each day whichever diet appeals most to the appetite. It is important that the patient take steps to avoid constipation. This causes an irritation which must be avoided by one who is struggling against this habit. Small daily enemas may be used, gradually lessening the quantity of water each day, the idea being slowly to bring about normal activity of the bowels without artificial assistance. However, it is best to use sufficient leafy vegetables and whole grain products or bran to insure two or three normal bowel evacuations daily. If constipation continues, mineral oil may be incorporated with the food of one or more meals of the day. Cold packs to the upper spine on retiring often will be of assistance as a means of reducing excitement of the generative system.

MEASLES (*Morbilli; Rubeola*).—An acute eliminative crisis characterized by fever and a distinctive skin eruption, occurring chiefly in children, but sometimes affecting adults. It is considered highly contagious; but whether a person gets the disease or not depends more upon how much he needs the extra elimination than upon exposure to the disease. However, since most people are in a more or less toxemic condition, it is well to isolate the patient and observe all sanitary precautions. The real cause of measles is the accumulation in the body of toxins, which always result from improper diet and other wrong habits of living. Children properly fed and cared for need not develop measles or any of the other so-called children's diseases.

Symptoms. From the time of infection to the outbreak of the disease there is a period of incubation of ten to fourteen days, although it has been known to appear within seven days and again as late as the twenty-first day. The onset usually is abrupt, the early symptoms resembling a severe head cold, with sneezing and a watery discharge from the eyes and the nose. Sometimes there

Masturbation,
Diet to
Help Break
Habit

Measles

Measles,
Symptoms

is a dry cough during this early stage. Also there is considerable fever and a redness of the whites of the eyes and the inner surface of the eyelids, with sensitiveness to light (*photophobia*).

Measles,
Koplik's
Spots in

Within one or two days the face tends to puff up, the cough and the eye symptoms increase and there are dryness of the throat and thirst. About this time minute white specks surrounded by reddened areas appear on the mucous membrane of the mouth and the inner surface of the lips. These are called *Koplik's spots*, from the physician who first described them. They are most common at the level of the lower back molar teeth.

At this time the temperature markedly rises, and this increase is followed by an eruption which rapidly extends over the entire person, beginning first on the temples, the forehead and behind the ears, thence spreading over face, trunk and extremities. This eruption appears in the form of light red spots about the size of a pea, sometimes smaller. Later the eruption darkens and becomes irregular, blotchy, and crescentic. The spots may finally run together and often large areas of the skin may be covered with one blotch.

The urine is heavy and voided frequently and there is constipation. The catarrhal discharge increases and the expectoration becomes more copious, the fever subsides and the skin begins to peel in fine, branny scales. This usually ensues about three or four days after the first appearance of the rash. The glands behind the jaw often enlarge. In some cases there are headache, nausea, vomiting and even convulsions. In the absence of complications convalescence is rapid, the symptoms all disappearing within ten days, the cough being the last to go.

The disease is most infectious in the catarrhal stage, before the eruption appears. The principal *complications* of measles are bronchitis, bronchopneumonia, and inflammation of the middle ear.

Measles,
Treatment

Treatment. Since measles usually is preceded by warning symptoms, such as running of the eyes and the nose, cough and irritability there is an excellent opportunity to start early treatment, in which case the symptoms usually will be light. In no case should there be any of the usual complications if prompt use is made of the natural methods of treatment. In fact, proper treatment instituted promptly may so abort the disease that it will fail to reach a stage where it may be positively diagnosed as measles.

At the first sign of trouble Complete Fast No. 3 should be immediately instituted, drinking the water hot or cold as desired. The water may be flavored with unsweetened fruit juices, such as those of lemon, orange, grapefruit and apple, or considerable orange juice may be allowed. A full enema should be given daily

during the fast; if the fever gets very high the water may be cool. A hot-blanket pack may be given on the first day, or other means adopted to induce free perspiration. Rest if so inclined in bed in a well ventilated room is important during early symptoms and fever.

On the second day, if fever has developed, a cold wet-sheet pack or neutral bath should be given instead of the hot-blanket pack. The fasting and water drinking should be continued and the enema repeated. This treatment should be followed until the fever subsides. To prevent the eyes from becoming inflamed or sensitive to light it will be necessary to use an eye shade or colored glasses, or partially to darken the room. Darkening, however, must not be allowed to interfere with free ventilation. The eyes may be bathed several times daily with warm boric acid water.

Measles,
Eye-Pro-
tection in

When the temperature has returned to normal, undiluted orange juice may be allowed as desired for one day. After this Milk Diet No. 1 should be used for two or three weeks, the quantities being regulated according to the age of the patient. Enemas are to be discontinued as soon as the bowels function normally. The patient should be allowed to go out whenever he desires if the body is kept warm. The patient should get more than the usual amount of rest and sleep, however, until there has been full recuperation. Dark glasses should be worn for the first few days the child is out of doors to prevent the eyes becoming affected. The eyes sometimes seem normal at first but become affected later. Glasses are a safe precaution.

MEGALOMANIA.—Insanity marked by delusions of one's own greatness. See *Insanity*, for general treatment.

MELANCHOLIA.—A mental disease marked by apathy and indifference to one's surroundings, mental sluggishness, depression, and sometimes suicidal tendencies. Also a symptom occurring in some psychoses, in which there is depression and retarded and painful mental processes. (See *Insanity*, also *Neurasthenia*.)

Melancholia

MEN, DISEASES OF.—When one speaks of the diseases of men one means the diseases of the male generative organs. These diseases may be specific or non-specific, that is venereal (resulting from sexual intercourse) or non-venereal. They practically all are inflammatory in nature and are due to uncleanness, unclean sexual intercourse, sexual excess, or infection. The venereal diseases common to both sexes are chancre, chancroid, gonorrhea, and syphilis, with their various complications. These diseases are discussed under their proper headings in this and the preceding volume. The various diseases peculiar to men alone will be found in their proper alphabetical places. But it may be well to mention a few of the commonest of them here. These are:

Men's Dis-
eases

Men's Dis-
eases,
List of

Balanitis	Prematurity	Satyriasis
Epididymitis	Epididymitis	Seminal Losses
Hematocele	Hydrocele	Seminal Vesicles,
Gleet	Priapism	Inflammation of
Hydrocele	Prostate Gland,	Sterility
Impotence	Diseases of	Stricture of Urethra
Orchitis	Prostate Gland,	Testicles, Disorders of
Phimosis	Inflammation of	Urethritis
Paraphimosis	Scrotal Hernia	Varicocele
Posthitis		

MENIERE'S DISEASE.—See under *Vertigo*.

Meningitis

MENINGITIS.—An inflammation of the membranes (*meninges*) covering the brain and the spinal cord. When the covering of the brain only is the seat of the inflammation the disease is called *cerebral meningitis*; when it is that of the spinal cord it is *spinal meningitis*; if coverings of both are affected the term is *cerebrospinal meningitis*. There are several other varieties of meningitis, such as tuberculous, septic, syphilitic, etc.; but the most common form is cerebrospinal meningitis.

Meningitis,
Cerebro-
spinal,
Symptoms

The *cerebrospinal* type. This is an acute infectious disease which occurs often in epidemics. It sometimes is called *spotted fever*, on account of a peculiar skin eruption which usually occurs with it. Under ordinary conditions this disease is most common in children up to five years of age. It seems to be most prevalent during the first six months of the year. This possibly is accounted for by the fact that during these months people are more confined to their houses than later and colds and coughs are more prevalent; and as this disease is contracted through the nasal passages, the sinuses and the mouth, this may explain the seasonal prevalence.

The onset of the disease usually is sudden, with fever, pain and stiffness of the muscles at the back of the neck. The head aches severely, pain extends down the spine, the eyes grow sensitive to light and the pulse is slow at first but later becomes rapid. The stiffness of the neck and the pains in the back and the spine increase in severity until the patient lies in a rigid condition with the head thrown far back—in severe cases so far back and the spine so stiff that the entire body is bowed backward, only the back of the head and the heels touching the bed. This condition is known as *opisthotonos*. When the rigid bending is forward the condition is termed *emprosthotonos*.

When this rigidity is pronounced the sufferer is seized with severe muscular spasms, which become convulsive. The pulse and the respiration are slow and irregular. The pupils frequently are unequal, though in the early stages they are likely to be contracted. In the later stages they are more likely to be dilated.

There frequently is strabismus or cross-eye. Constipation is present. A red eruption similar to the rash of measles often appears upon the nape of the neck and along the spine. In the early stages of the disease there may be great restlessness and delirium; later on there may be stupor or coma. Vomiting also is a common symptom in the early stages. The temperature is irregular, varying from 103 degrees to 105 degrees.

If the attack is severe, death may result within twenty-four hours. If recovery takes place convalescence is protracted. As after-effects of the disease there may be paralysis of one or more of the limbs, cross-eye, blindness, deafness and (or) mental defects. If the inflammation spreads to the middle ear and the brain becomes involved the condition is further complicated by delirium. Pus, which then collects in the brain, greatly increases the gravity of the sufferer's condition and makes a recovery extremely doubtful.

Tuberculous meningitis is a form of inflammation to which children of a tuberculous tendency are liable. It often appears after the attack of an infectious disease, such as measles or typhoid, or it may result as a complication of influenza. It is most common between the ages of two and five years, but rare under one year. No age is immune, however. It usually is secondary to some tuberculous focus in some other part of the body, generally the intestinal or the bronchial glands.

Meningitis,
Tuberculous,
Stages

The symptoms, for convenience of description, usually are divided into three stages: After a prodromal period of two to six weeks the *stage of irritation* appears, often ushered in with convulsions. In this stage there may be severe headache, vomiting, fever, rapid pulse which later becomes slow and irregular, constipation, a peculiar short, sharp cry occurring at intervals, restlessness, muscular twitchings and contracted pupils. This merges into the second stage, the *pressure stage*, the symptoms of the first stage generally disappear gradually, headache being less severe and vomiting being relieved. There is difficulty in swallowing. The patient lies on one side with the legs drawn up and there may be rigidity or convulsions. The pulse is slow and irregular. This stage is followed by the third stage, or *stage of paralysis*, in which there are deepening coma, spasms, paralysis, dilated pupils and rapid pulse. The duration of the disease varies from a few weeks to two months. The result nearly always is fatal.

Treatment. At the first symptoms indicating that the brain is becoming inflamed or irritated, if the patient is not already on a fast for some other condition he should immediately start Complete Fast No. 3, drinking freely of hot water and taking daily full hot enemas. If the fever becomes high, however, the drinking water and enemas may be taken cool. In the case of young chil-

Meningitis,
Treatment

Meningitis,
Treatment

dren fruit juices, such as those of orange, apple and grape, may be permitted in moderate amounts, especially if they are desired.

If the fever is very high it would be better not to take the fruit juice, but to limit the diet to water flavored with fruit juice. The patient should have complete rest and quiet in a partially darkened room, but an abundance of fresh air should be provided. On the first day a full hot-blanket pack should be given to induce free perspiration, a cold towel being kept on the head during the pack. After this is removed a cold neck pack should be applied, changing each as it becomes warm, and continuing for an hour or more. After an hour's rest, if necessary, the packs may be re-applied—several times if the symptoms continue.

On the next day, if the symptoms have not improved, a hot half-bath may be given, applying a cold affusion to the head, upper back and chest after the patient has been in the bath for a few minutes. Vigorous friction must be applied while pouring on the cold water. When full reaction to the cold water has been secured, the patient should be removed from the bath and allowed to rest, except that the cold neck packs should be applied as directed.

In severe cases the hot half-bath, if not too devitalizing, may be repeated every two hours. On the other hand, if the patient shows improvement by the second day the hot half-bath need not be used, but hot spinal compresses with Special Manual Treatments 1 to 10 should be applied during the morning and a cold abdominal pack in the late afternoon. If the patient fails to react satisfactorily to the latter, however, the hot abdominal packs may be used instead. An enema is to be given in the evening.

Meningitis,
Diet in

If such a reaction occurs, the fast may be broken by observing one day on fresh fruit juices and then two days on the entire fruit. After this, Milk Diet No. 3 should be adhered to during the entire period of convalescence. The abdominal packs may be discontinued. The Special Manual Treatments should be kept up. After a few days, massage and general bodily manipulations may be added. The patient should resume activities gradually, but as soon as the strength permits should take gradually lengthening walks. If possible, sea-bathing may be indulged in, progressively increasing the time and the energy expended. During convalescence, spinal traction treatments with radiant heat to the back for ten or fifteen minutes twice or thrice a week should be followed by back manipulations to aid in restoring normal health. Constitutional treatments with ultra-violet rays and natural sun-baths in graduated doses will also help.

If the case is complicated by delirium, neutral immersion baths should be used instead of the abdominal packs. When there are convulsions which cannot be controlled by these packs, a hot im-

mersion bath should be given, using a cold towel on the head. If coma develops, use only the hot spinal compresses two or three times a day and perhaps the lighter Special Manual Treatments once daily. If tuberculosis is present, include the treatment described under this heading.

MENOPAUSE (*Change of Life; Climacteric*).—This is a condition in which menstruation ceases either suddenly or gradually, not to return after the change is completed. It is the local and systemic change resulting from cessation of the function of the ovaries and is accompanied by the gradual involution or shrinking of the uterus.

Menopause

The menopause generally occurs between forty-five and forty-eight years, though often earlier, even in the thirties, and there are many cases where it does not appear until well into the fifties. The menopause is considered to be the chief critical period in a woman's life, as at this particular time any of the organs if not sound may be affected. Most of the organic diseases are prone to develop about this time.

Certain phenomena may or may not occur at this period. Among these are:

Menopause,
Symptoms
During

(a) *Flushes* ("Hot Flashes"). Rush of blood to the surface of the body, especially face and neck, with burning and tingling, lasting for a short time and receding, leaving the person in a more or less profuse perspiration.

(b) *Hemorrhages*. Slight irregular uterine bleedings from time to time. If these are profuse, frequent, or long continued it may mean the presence of some organic disorder of the uterus, so calls for careful investigation.

(c) *Faintness* and *Palpitation*, of nervous origin, are common.

(d) *Hysteria* sometimes occurs, as well as psychical disturbances, such as nervousness, insomnia, depression of spirits, delusions and a tendency to melancholia.

If the function of the ovaries ceases too suddenly and the uterus does not contract as it should, due to some abnormal condition, there is likely to be hemorrhage. If, on the other hand, the uterus contracts before the ovaries are ready to cease functioning, the nervous symptoms seem to predominate, and there may be headache, hysterical manifestations, depression and a tendency to melancholia.

All women pass through the menopause; but some pass through with no severe symptoms, while others suffer severely from nervous reactions. The "change" is due to cessation of the ovaries, the body then being deprived of their internal secretion and being affected by the resulting alteration of the secretions of the other glands. The woman who lives healthfully will not have distressing symptoms at the time. When these develop it is neces-

Menopause,
Naturalness
of

sary for her to reduce her toxemia, adopt a suitable vitality-building routine and avoid fear and worry. (See also *Menopause*, Vol. IV, Sec. 7.)

MENORRHAGIA.—Excessive menstruation. See *Menstruation*.

MENSES.—See *Menstruation*.

MENSTRUAL MANIA.—This is a form of mania, temporary in character, occurring at the menstrual period. In it there is more or less hysteria and sometimes suicidal or homicidal tendencies. It is a nervous disorder, not a true mental derangement, and usually is temporary. Often it is due to ungratified sexual desire, usually unrecognized. It should be treated with cold packs to the head and the upper spine and hot applications to the feet and hips. A hot foot-bath, together with cold packs to the head and neck, is of value. Fasting and outdoor air, liberal water drinking, and enemas are to be recommended. In addition to this, the suggestions made for the treatment of painful menstruation will apply here as well.

Menstrua-
tion

MENSTRUATION.—Menorrhea is the periodical discharge of a bloody fluid from the female internal genitals. It takes place normally every twenty-eight days, beginning at the time of puberty (fourteen to fifteen years in temperate climates) and ceases about the forty-fifth year. It is coincident with the liberation of an ovum or egg from the surface of one of the ovaries. The ovum enters the Fallopian tube, passes into the uterus and is discharged from thence in all cases except when it is impregnated, when it remains in the uterus and fastens itself to the uterine wall, there to develop.

This menstrual flow consists of blood containing mucus and degenerated epithelial cells from the lining of the uterus. Menstruation is the sign of sexual maturity. Its first appearance is coexistent with a maturing of the body in general, as the development of the breasts, growing of hair upon the pubes, etc. This is called puberty, and as soon as this state is established a girl is capable of bearing a child provided no anatomical or pathological condition interferes. When a woman is in a pregnant state menstruation ceases, as a rule, and reappears a variable length of time after the child is born. If the child nurses at the breast menstruation may not appear at all during active lactation.

Menstrua-
tion, Age at
Appearance
of

In warm climates menstruation begins much earlier as a rule than in colder climates. In the tropics it appears at twelve or even eleven years of age, while in the temperate zones it generally appears at about the thirteenth or fourteenth year, though it may be delayed until the fifteenth or sixteenth year. Warmth, good food, and luxurious living tend to hasten its first appearance. Possibly because they spend much of life in hot igloos (huts), Eskimo girls

enter puberty at ages between girls of the hotter climes and those of the temperate zones. Women of certain races menstruate earlier than those of others.

In the beginning some young girls menstruate regularly once or twice then skip one or more months, coming on again and being regular for a time. This may occur several times before the process becomes normally established. The time of the month for menstruation varies, but the statement has been made that a large percentage of women menstruate during the first quarter of the moon. (Strahl.)

The average duration of menstruation is three to five days, though it may last a week or may be for only one or two days. It begins slowly, increases to the maximum and then slowly subsides. At first during each period it is rather slimy, then almost pure blood and at the last it again becomes more or less slimy. Often it is more or less, sometimes markedly odorous. Some women will menstruate every three weeks without any disturbance in their general health. Usually when menstruation is coming on the breasts swell somewhat and become more or less tender. Often there is slight backache and distress in the loins and a varying degree of nervousness. Some women have no symptoms except the flow. Unhealthy conditions of the female organs will influence the symptoms. During menstruation the uterus and the ovaries become congested; in occasional cases, the thyroid gland also.

Menstrua-
tion, Dura-
tion

Too great a loss of blood at the menstrual period is called *menorrhagia*; any loss of blood from the uterus during the intervals between menses is called *metrorrhagia*; absence of menstruation in a woman in whom it naturally should be present is called *amenorrhea*; painful menstruation is called *dysmenorrhea*. All these are abnormal and may be caused by either local or general constitutional conditions. The cause of the condition must be discovered so the proper treatment of that trouble may rectify the abnormal menstrual condition.

Menstrua-
tion, Abnor-
mal, Types

The relation of menstruation to ovulation has been the subject of much discussion and the advancement of many theories. Such investigators as Reichert, Engelmann, Williams and others have put forward the theory that a sympathetic congestion of the uterus precedes ovulation and that the swollen, soft and congested lining of the uterus is made more receptive to the ovum, which if impregnated attaches itself to this lining; that the character of this lining then changes somewhat and from then on menstruation ceases; but if there be no impregnation certain parts of this lining become detached and are discharged with bleeding.

However this may be, it seems to be certain that menstrual bleeding is a natural elimination of blood impurities. In countries

where women live an active outdoor life menstruation often ceases entirely during the summer—when the other eliminative organs are actively working. For this reason a copious menstrual discharge or its cessation in the case of females whose health is in any way impaired suggests conditions demanding more attention than they usually receive. Whenever menstruation is accompanied or preceded by severe headache, depression or nervous irritability, or whenever the discharge ceases entirely, unless proper attention be paid to the condition one or more of those ailments peculiar to women may be expected to develop sooner or later.

Menstrua-
tion, Cessa-
tion of

The cessation of the menstrual flow, when brought about by natural causes, can hardly be termed suppressed menstruation. One must remember that ovulation is really a part of the physiological process associated with menstruation. When for any reason, vital or otherwise, ovulation ceases, then, in most cases, menstruation also ceases. The ovum, discharged from the ovary and passed through the Fallopian tube into the uterus, if not impregnated remains in the uterus for a time and is then washed out by menstruation. In many cases the body makes use of an allied process as a means of ridding itself of impurities. The truth of this assertion is proved by the experience of many women patients who go through the purifying and vitality-building processes which we prescribe in curing diseases not associated with pelvic disorders.

For instance, in the cure of stomach trouble or any disease that has affected the vitality, the fasting process, the limited diet and the body-purifying routines often result in menstruation disappearing for several months. Symptoms of this kind may cause some worry; but in reality they are an evidence that there has been no vitality to spare for ovulation, and when ovulation is discontinued there naturally is no need for menstruation. But after a few months, if the vitality is sufficiently restored to bring about ovulation, menstruation reappears.

Amenorrhœa

MENSTRUATION, ABSENCE OF (*Amenorrhœa*).—Absence of the menstrual flow may be primary or secondary: primary in those persons in which it has never appeared; secondary in those persons in whom it has been established and later becomes suppressed or is absent. Secondary amenorrhœa may be the result of either retention or suppression of the flow. It also may occur from natural physiological causes. In such a case all that is needed is the building up of the general health and vitality.

Primary amenorrhœa may be the result of imperfect or arrested development of the generative system, or the absence of the ovaries or the uterus. In these latter cases the breasts will fail to develop, the maturity of the body will be lacking and other indications

of well-sexed womanhood will fail to manifest themselves. When caused by imperfect development, the logical treatment is care of the general health and freedom from mental strain, too much study, etc., but plenty of exercise and recreation and the building up to the full of the vitality of the body by the methods taught in this work.

Some young women begin to menstruate much later than others. But if the general health is good no alarm need be felt at the delay of this function. Sometimes menstruation is delayed until the sixteenth or seventeenth year, with no injurious effects. Again, it sometimes happens that menstruation will begin at the usual age and after a few months will cease for a time, sometimes several months elapsing before its resumption. If the health is normal no fears need be entertained. But if there seems to be a decline in the general health, with various distressing symptoms each month at the time the flow should normally appear, it then may be regarded as a case of suppression and will need treatment. (See *Menstruation, Suppressed*.)

Menstrua-
tion, Sup-
pressed,
Symptoms

MENSTRUATION, PAINFUL OR DIFFICULT (*Dysmenorrhea*).—Painful menstruation is a common affliction, most women, under modern conditions of living, having suffered more or less from this condition at some time or other. Many of them suffer severely each month from the time of their first menstruation until the change of life.

Dysmenor-
rhea

The usual causes of this disorder are constitutional in nature, growing out of the weakness and impurity of the blood of the sufferer. Many cases are of nervous origin, being neuralgic in character, or due to a greatly run-down condition. Improper carriage, poor circulation, malnutrition, indoor life, lack of proper exercise, etc., all are strong factors in the development of this condition. Improper clothing and tight girdles or corsets also should be held responsible for many cases of this trouble, on account of the abnormal pressure upon the parts, causing congestion and inflammation, and sometimes also causing displacements of the uterus.

Dysmenor-
rhea, Causes

These displacements are conspicuous causes of dysmenorrhea, as the bending of the uterus obstructs the canal and interferes with the passage of the blood, thus causing the great distress. Some cases seem to be of rheumatic origin. Exposure to cold is claimed to be a cause in some instances. This is problematic, though cold might have its influence by causing severe congestion or even inflammation of the several parts of the generative system, thus bringing on this condition. Sexual excesses also are a factor by weakening, irritating, and lowering the tone of the parts; but sexual starvation is as likely to cause the disturbance. Any inflam-

matory condition of the sexual organs will cause much pain during the menstrual period.

Dysmenor-
rhea, Mem-
branous

There is a peculiar variety of painful menstruation called *membranous dysmenorrhea*, in which shreds of membrane are thrown off in the flow by means of sharp convulsive contractions of the uterus not unlike those of labor. These contractions produce great suffering. They are paroxysmal, with a period of comparative comfort between each two. They may last for the entire time of the menstruation. This fortunately is not a common form of dysmenorrhea.

The nature of the pain differs in differently constituted women. Those of high-strung or nervous nature are likely to suffer severely. With them the pain often is of a neuralgic character. If there is much inflammation the pain often is referred to the lower portion of the back. If the ovaries or the tubes are in a diseased condition, the pain will be referred to those organs. If there is a displacement, the pain is referred to the uterus.

Dysmenor-
rhea,
Treatment

Treatment. For immediate relief in painful menstruation there is nothing more effective than a hot sitz-bath at 108 degrees to 115 degrees F. Hot hip packs or hot foot-baths also may be used; and care should be taken to keep the bowels free. A hot enema will serve for this, and it will relieve the pain. The free drinking of either hot or cold water will be of advantage. Hands and feet should be kept warm and all excitement should be avoided. If it is possible to be out of doors for most of the time, so much the better. No corsets should be worn at this time, even if they be resumed after the period is over. The least pressure against the lower abdomen often aggravates the condition. If the generative organs are at all inflamed a fast of a few days will be more or less advantageous.

The cure of this complaint depends largely upon constitutional treatment between the menstrual periods. The patient at this time should devote herself to exercises, to outdoor pastimes, especially walking and to all measures designed to increase the bodily vigor and that of the nervous system.

If generally run-down, a special diet would be advisable. (See *Vital Depletion* in this volume.) Continence is to be faithfully observed in most cases.

In some cases the menstrual trouble is due to incomplete sexual intercourse. The woman may have her sexual passion stimulated to a high degree yet because of the husband's lack of sex-harmony she may remain stimulated without complete sexual outlet. This leaves her sexual system greatly congested, for normal termination of the sex act is a decongestant of this system. If the husband can so improve his sex health and vigor or so master his control

that the wife also completes the act, much will be done toward correcting the menstrual trouble. Daily cold sitz-baths between the periods are excellent, as they are tonic to the pelvic structures and important as upbuilders of general vitality and as stimulators of the local and general circulation.

This condition depends largely upon general weakness and poor circulation. The woman who is hale and strong and who has no uterine displacements, mechanical obstruction or inflammation, as a rule will have no trouble and will not suffer pain during menstruation. This is natural, and is proved by the number of women who practice physical culture methods and who have no sign of pain at their menstrual periods.

The active, strong, healthy washerwoman, unhampered by the decrees of fashion, usually goes through her sexual life free from menstrual pains. Most of these women are phlegmatic, so to them the sexual act means nothing. The women of primitive and savage tribes who live a natural life, largely unclothed, not only experience no pain in connection with the monthly flow, but even do not at some seasons have even a semblance of a flow. An important consideration here, however, is that the sexual act to primitive people is much more complete than with most civilized people. They have no inhibitions, and their code of ethics is such that if any mate fails to put all possible art into the act another will be found who will. They also indulge in interpretive dances upon frequent occasions. In these their movements cause great activity of the lower spine and the hips. Hence there is little or no chance for chronic pelvic congestion among these women. So the real remedy lies in becoming vigorous and pure blooded and in normal sex expression or banishing all thoughts of sex by sublimation.

Uterine displacements, which contribute to this condition, should be remedied by the means described elsewhere in this volume. In cases where there is a stricture of the neck of the womb, or some other mechanical obstruction, dilation of the cervix by a surgeon may become necessary.

MENSTRUATION, PROFUSE (*Menorrhagia*).—This condition is an excessive or prolonged flowing at the menstrual period. It is the result of inflammation of the lining membrane of the uterus, though this may be associated with other disorders. A laceration or tear of the neck of the uterus due to childbirth, subinvolution, displacements, ulceration of the mouth of the uterus, tumors or cancer, or disease of the ovaries or tubes, all may be contributing causes of menorrhagia. Enlargement of the uterus, retention of placental tissue, injuries due to hurried removal of the placenta after childbirth or from the use of instruments, also may have an influence in the occurrence of this disorder.

Menorrhagia

Menstrua-
tion, Profuse,
Causes

As a rule, however, this condition can be traced back to poor health and low vitality, though it may arise from any of the above mentioned causes, so constitutional treatment is needed if a cure is to be looked for. In cases of tuberculosis or other wasting diseases which cause thinness and poor quality of the blood, there is a tendency to hemorrhages; but later on in these diseases the blood is so deficient in quality and quantity that we find an entire absence of menstruation in many cases.

Sedentary habits, lack of exercise, mental or physical strain, late hours, excitement, strenuous social duties and other debilitating influences also are contributing factors. Sexual excesses frequently are a cause, as these render the organs congested and sensitive. Repeated child-bearing in a weak woman or in one whose habits of life are unhygienic and debilitating, may be a cause. Therefore, it can be said that lowered vitality, physical weakness and impoverished blood are really the true causes of this abnormality, because they conduce to inflammatory and other conditions which are the immediate factors in the development of menorrhagia.

There has been a question as to just what constitutes menorrhagia, inasmuch as the normal menstruation varies so widely in different persons. Two factors are to be considered in deciding this question. One is as to whether there is progressive deterioration of the health of the patient; the other is as to passage of blood clots at the period. In many cases a third factor enters, that of comparison with previous menses during health. Owing to the admixture of mucus with the blood the normal flow does not clot or coagulate, so it is only when there is an excess of blood over mucus, as in profuse menstruation, that clots are formed.

Menstrua-
tion,
Irregular

Irregular menstruation, in which there are too short intervals between periods, often proves as much of a drain upon the body as an excessive or prolonged flow at the regular period. The premature appearance of the periods apparently is due to premature expulsion of the ova. It will be remembered that the ova normally mature and are expelled once in twenty-eight days. But sometimes, due to lowered vitality, the ovarian vesicles are arrested in their development, fail to reach maturity and abort before the four weeks have elapsed. Consequently the menstrual flow appears also at these premature periods. In irregular menstruation in which the interval between periods is unusually long there usually is lowered vitality. Because of the deficient pelvic circulation the ova require a longer time than normal for maturation.

Metrorrhagia

Metrorrhagia, as before mentioned, is a term applied to the loss of blood *between* the regular menstrual periods. Its causes are the same as those inducing menorrhagia and the treatment likewise is the same.

Treatment. As these conditions, usually, are associated with vital depletion, if one will adopt measures for adding to the general vitality the trouble often will disappear. If there are no complicating symptoms, then the routine for adding to the vital vigor, including a fast, will bring about a change for the better. Of course, the fast must not be continued for too long a period, though one of seven to fifteen days usually is essential in order to bring about a change for the better.

Where it is inexpedient to take a complete fast, then Partial Fasting Routine Nos. 1, 4 or 5 may be observed for ten to twenty days. The fast or the partial fasting routine, whichever may be decided upon, should be followed by an exclusive milk diet, such as is advised in Milk Diet Routine No. 2. This dietetic routine seems to have a decided beneficial effect in practically every instance. As stated, the ailment is an indication of vital depletion, so the milk diet has much influence in adding to the general vitality.

Special Manual Treatments 1 to 10 may be used to advantage each day. When there is constipation, a small enema of just sufficient water to bring about desired results, should be administered daily. A full enema draws on the vital energies.

The patient must remain quiet while the flow continues. It is even well in extreme cases to lie on the back with hips elevated a few inches. In case of pronounced hemorrhage cold hip packs are often advised with the patient in this position. When the flow has ceased, a moderate amount of exercise is advisable, but it should be taken in the mornings before beginning the milk diet and be confined to the movements for the abdomen and the back, taken in a reclining position. As strength is gained, Self-Applied Shoulder, Waist and Back Manipulations 9, 10, 15 to 17 may be taken.

Great care must be observed to avoid over-exercising. Long walks and the special exercises are of much benefit in this trouble, provided they do not aggravate the symptoms. Internal secretion therapy is of great value in some of these cases, but must be combined with such measures as herein advised for lasting results.

Curettement (*curettage*) is commonly resorted to by surgeons as a proposed cure for such troubles as are here described; but it frequently fails to attain a real cure and often has undesirable results. However, it sometimes is of value where diseased tissues or products of conception are retained in the uterus. But in these cases there are other symptoms in addition to profuse bleeding, notably a purulent and often offensive discharge. In such cases there are far better measures of treatment than curettage. If large quantities of milk are taken the milk diet usually causes all accumulation in the uterus to be discharged in a natural manner.

The use of hot antiseptic vaginal douches, together with fasting and general constitutional treatment, will produce the best results. As a substitute for curettement some specialists direct superheated and antiseptic vapor into the uterine cavity, but less complicated and more general natural remedies will be much more effective. Self-Applied Exercise Movements Nos. 1 to 6 are especially valuable if taken continuously for some time in the intervals between the periods of flowing.

Menstrua-
tion, Sup-
pression of,
Chronic

MENSTRUATION, RETAINED (see also *Menstruation, Suppressed; Menstruation, Absence of, Amenorrhea*).—Retained menstruation is the result of mechanical obstruction or impediment to the flow. It is to be distinguished from suppressed menstruation or absent menstruation. Retention may be the result of what is called imperforate hymen, of a constricted mouth or neck of the uterus, or of a shutting off of the lumen of the canal of the uterus due to bendings of the body of that organ (flexions). It may come also from the adhering of the walls of the vagina to each other from inflammatory conditions. Imperforate hymen is a condition in which the hymen, or thin curtain of skin, which in the majority of virgins partially closes the external opening of the genitals, entirely closes off that opening, thus preventing the passage of blood.

In cases of retained menstruation there is a distended lower abdomen, with a sense of fullness, weight and discomfort. This condition sometimes even simulates pregnancy. Where there is ante flexion or retroflexion of the uterus the condition often can be remedied by the methods detailed elsewhere. (See *Uterus, Displacements of*.) In other cases the opening or mouth of the uterus may need stretching, adhesions in the vagina broken up, or the imperforate hymen opened by a simple incision.

Menstrua-
tion, Absence
of—Amen-
orrhea

MENSTRUATION, SUPPRESSED (*Amenorrhea*).—Suppressed menstruation is most frequently the result of some constitutional condition, though it may be due also to some local uterine or ovarian disease. Frequently it is associated with such diseases as tuberculosis, anemia, chlorosis, cancer, obesity, and other conditions characterized by greatly reduced vitality. In fact, anything which reduces the quality or quantity of the blood may be an active cause. It may follow great mental suffering, severe fevers, typhoid fever, pneumonia, or severe conditions of the nervous system. In some weak persons it may be induced even by a chill during or just before the flow begins, checking or perhaps preventing it. Cold wet feet, sitting on cold, damp surfaces, etc., may produce it.

As a rule one who has health and pure blood need not fear this condition; but the resulting congestion in a woman who is weak and who has a poor circulation may be productive of considerable trouble at this time. When due to such immediate causes rather

than to more deep-seated constitutional conditions, restoring the normal functions of the organs is not difficult. Sometimes fright or other sudden nervous disturbance may cause suppression, although the general constitutional condition of the patient is also a large factor. Local inflammations of the organs also may be active causes of suppression.

Symptoms. Generally there are headache, pain in the back, loins and limbs, languor and often nausea, flushing of the face, feverishness, dizziness, or even impaired eyesight. Sometimes the pain is neuralgic in character, both in the head and in the uterus, causing intense suffering.

Treatment. Every effort should be made to ascertain the specific cause of the suppression, bearing in mind that constitutional conditions often are a large factor. Pregnancy must be excluded before attempting to treat these cases of suppression. If there be some general constitutional disease, such as any of those mentioned, attention should be given to eradicating this disease and to building up the body. Occasionally the trouble may be due to exhausting sexual excesses. These, of course, must be avoided.

In acute cases, in which the flow has been stopped suddenly, as by a chill or a fright, a hot sitz-bath is most efficient, to be taken at a temperature of say 110 degrees F. or as hot as the patient can comfortably endure. The bath should last for ten to twenty minutes unless there is a feeling of weakness, when it must be terminated.

A hot hip pack, applied for at least a half hour, may be substituted for the sitz-bath, though it must be taken off before it cools and the hips must not be chilled when it is removed. The hot sitz-bath, taken morning and evening, is more to be relied upon. This measure is of great benefit also when the menstruation is scanty or partially suppressed. The free drinking of hot water also is to be recommended, together with a hot enema, taken once daily but not near the time of the bath. This will insure activity of the bowels, a very important matter, and is directly beneficial otherwise, as it brings the heat in close contact with the pelvic organs. If the patient has had a severe chill resulting in suppression, the best treatment would be a hot full bath at 105 to 115 degrees, for about twenty minutes. The higher the temperature, the shorter the bath. In the hot sitz or the tub bath a cold turban should be about the head.

In chronic suppression, which has developed gradually, every effort should be made to improve the general health and the quality as well as the quantity of the blood. If associated with obesity, a fast of ten or more days is recommended, using Complete Fast No. 2, or a diet of oranges or other fruit only; but in practically

Menstrua-
tion, Sup-
pressed,
Treatment

Menstrua-
tion, Sup-
pressed,
Hydro-
therapy in

all other cases, a fast of two or three days only, followed by a milk diet, is recommended (Milk Diet No. 1). Outdoor life and outdoor sleeping are beneficial, for the reduced vitality commonly found with these cases needs powerful health-building measures. The patient should have an abundance of sunshine and should take air-baths at frequent intervals, making sure, however, that the hands and the feet are kept warm and the body comfortable.

This question of warm extremities is a rather important one in these cases and should be especially considered during cold weather. One should not remain indoors on this account, but should be out in the air, protected, if necessary, by wearing more clothing and by warmer bed-coverings at night. For instance, mittens are warmer than gloves and should be worn in preference; if necessary also, one should wear protection for the ankles and the wrists in the form of woolen anklets and wristlets. Walking is valuable at all seasons of the year.

In these chronic cases it often seems as though Nature makes attempts to restore the lost function, as would appear from the pains in the back and the abdomen, the sense of weight and fullness at times when the menstruation should appear, denoting congestion of the parts. This is the time for the patient vigorously to apply the treatment recommended, including the hot baths, hot packs, hot drinks, and hot enemas. If there is deficient blood, it will be necessary to keep up the vitality-building routine until results are obtained.

MENTAL DERANGEMENTS.—The acute forms of mental derangement include delirium, hysteria and mania. Delirium usually is due to high fever, excessive use of alcohol or head injury. Hysteria is due to general wrong habits of living and thinking, together with an inherited instability of the nervous system. Mania is due to the same cause as hysteria, with the excessive use of alcohol as a prominent cause in many cases. Maniacal attacks sometimes occur in other forms of insanity and also in epilepsy. With the exception of those few cases due to head injury, all mental derangements are fundamentally a result of wrong habits of living and thinking. (See *Hysteria, Delirium and Insanity*.)

Treatment. In general the treatment of mania is the same as for hysteria; namely, mental suggestion and general constitutional upbuilding. The patient will not be in a condition suitable to the use of auto-suggestion, and hetero-suggestions will have to be employed. These should be both direct and indirect and may be given by speech, gestures and general action. Direct suggestions can also be given to the patient while he is asleep. (See *Mental and Psychic Healing*, Vol. VI, Section 7.)

When the patient is violent, neutral immersion baths of 98

Mental
Derange-
ments

Mental De-
rangements,
Treatment

degrees to 100 degrees F. are especially indicated. The bath should be continued until the patient becomes quiet. If he is very violent it may be necessary to use some form of restraint. In this case the bath should be started at a temperature of 110 degrees and gradually reduced to 98 degrees, with cold applications to head and neck. If the full bath is not available, a hot foot-bath with ice-bags to the head and the nape of the neck may be substituted. When the patient is not in a water bath he should have an air-bath by removing all clothing, though, of course, he should not be allowed to become chilled. Air-baths are soothing to the nerves. During an acute attack it is well to have the patient fast. After an attack attention should be directed to a general vitality-building routine. For the treatment of chronic mental derangement and insanity, see *Insanity*.

METASTASIS.—A change in the character, the spread or the the shifting of position of a disease from one part of the body to another. (See general suggestions under *Complication*.) Metastasis

METRITIS.—See *Uterus, Diseases of*.

MIGRAINE (*Sick Headache*).—A condition marked by severe paroxysmal attacks of headache, usually confined to one side of the head, usually accompanied by nausea and vomiting and often by peculiar visionary disturbances. Heredity seems to have influence in the development of this condition, the tendency being apparently often transmitted from one generation to the next. It is more common in those who do not pursue outdoor vocations. Migraine

Migraine usually begins in early life, seldom developing after the age of thirty. While there often is no evident cause in many cases, the cause can be traced in others to an undermining of the constitution, by mental worry, stomach disorders, etc., to such an extent that there is not sufficient resisting power remaining. There usually is some pronounced abnormality of liver function. The attacks recur with regular frequency. Each attack usually lasts a few hours and ends with a vomiting spell. Though a patient may have suffered from recurrent attacks for twenty or thirty years, experience proves that a few months of vigorous constitutional measures usually effect a cure.

Treatment. The cure of this condition depends largely upon constitutional upbuilding. The patient must adopt means for adding to the vital strength of the body. The digestive and nervous systems must receive special attention. Migraine,
Treatment

In inaugurating the treatment Complete Fast No. 3 should be adhered to for a long or a short period, depending on the vitality and weight of the patient. A milk diet is sometimes of value. It adds to the vigor of the stomach and the alimentary canal and assists in the blood-purifying process. Usually buttermilk or soured

or sweet skim milk will be much better than whole sweet milk. If the patient is overweight, Salad Diet No. 5 or 6 may be taken for a short period. Hot, fairly large enemas should be used during the fast when there is even slight tendency towards constipation.

It also is of special importance to select a vitality-building routine adapted to one's strength and carefully and persistently follow out the instructions outlined therein. Long walks and exercise of all kinds add to the general strength. Mental fatigue, tobacco and all stimulating beverages, as well as spices, condiments and rich foods must be avoided.

Migraine,
Manipulative Treat-
ment for

Special Manual Treatment Nos. 11 to 16 or Self-Applied Exercise Movements Nos. 1 to 6 are recommended to be used every day. If the patient is vigorous Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 and Hip and Spinal Manipulations Nos. 27 to 32 also may be taken daily, the first series in the morning and the second series in the evening. Massage of the nape of the neck and around the eye orbits is especially beneficial. Infra-red rays locally to the face and general ultra-violet rays or natural sun baths to the whole body are valuable, as are osteopathic and other properly given manipulative treatments.

Cold sponge baths or cold wet-hand or cold wet-towel baths should be taken regularly every day. Cold water to the feet often helps greatly, because of the reaction—which reaction must be secured, of course; or heat may be applied to the feet, followed by cold. Hot general baths with a cold turban rather tightly applied may be used with benefit, also. Turkish baths or similar sweating procedure and galvanic current locally applied may also help.

In treating this complaint one must be satisfied with slow progress. If it has been of long standing, cure or great improvement may take several months to remove all symptoms of this disorder. But a strict observance of the treatment suggested will bring about recovery, certainly great relief, in most cases. Special attention is called to limited diets as exclusive dietary for several months.

MILIARIA.—See *Prickly Heat*.

MILIARY TUBERCULOSIS.—See *Tuberculosis, Acute Miliary*.

Milk-Leg

MILK-LEG (*Phlegmasia alba dolens*).—Milk-leg is the common name for phlebitis, or inflammation of the femoral veins, resulting in an interference to the circulation of the leg, or legs if both sides are affected. Thrombosis or coagulated fibrin may form in the veins. The inflammation is practically always due to an infection following childbirth; but it may result from a genital infection at any other time, or from typhoid fever, or occasionally from simple pressure upon the veins. There always is an underlying general toxemia. This makes the inflammation more likely to occur. The Latin name means angry white painful swelling. The leg may be

swollen from the foot to the groin. The skin is white, tense and shining and the leg is very painful.

Treatment. As this condition is always rather resistant to treatment, prevention is most important. This should consist of right habits of living at all times, especially during the period of pregnancy and of proper antiseptic and aseptic precautions during and after childbirth, or after miscarriage if that should take place. Proper treatment of conditions which may lead to milk-leg will also be preventive. (See *Miscarriage*, and *Typhoid Fever*.) If inflammation of the vein does occur treatment should be given as follows:

Milk-Leg,
Treatment

Complete rest in bed is necessary. The affected parts should be kept elevated. Plenty of fresh air should be provided and the patient should practice deep breathing, as this materially assists the circulation. Complete Fast No. 3 should be employed, drinking freely of both hot and cold water. Daily warm or cool enemas should be taken. The blood will surely be laden with toxins, hence the eliminating organs must be kept actively working. A hot-blanket pack covering the legs and abdomen should be employed daily for a sufficient length of time to induce free perspiration, especially locally, and to increase activity of the abdominal organs. After removing the pack a brief cool sponge should be given. In severe cases a cold pack may be applied to the affected leg or legs at night before going to sleep, to remain until the patient wakes.

Milk-Leg,
Milk Diet in

These measures should be continued until the acute symptoms subside, after which the fast may be broken with the Fast-Breaking Routine appropriate to its length and followed by Milk Diet No. 1. The milk diet is especially indicated, because it maintains an active circulation at the same time continuing general elimination. Enemas should be given as necessary until the bowels move naturally and adequately. Colonic irrigations are also good, every other day for two weeks, then twice a week until marked improvement is noted. Hot-blanket packs to legs and hips should be continued until all swelling has been reduced. The patient should walk but little until this has been accomplished; but when little swelling is left graduated general exercise in the reclining position may be taken. Massage must not be used, because an embolus may thus be separated from the thrombus and be carried to some vital organ with fatal results.

In those cases not properly treated at the start, as a result of which neglect a chronic swelling remains, this same treatment may be employed except that the fast may be arbitrarily limited to seven to ten days. If it seems necessary, this should be repeated after weight is regained from the first one. Massage may be used with benefit in chronic cases. (See *Puerperal Fever*.)

Miscarriage

MISCARRIAGE.—The premature expulsion of the fetus during the fourth and up to the sixth month of pregnancy. This may result from various causes. Probably the most common is an injury, such as a fall or a blow upon the abdomen, jars while in an automobile or even a railway train. Often these are so slight as to pass unnoticed at the time. A violent attack of coughing, or vomiting, convulsions or other muscular spasms and violent emotional or mental shock may also be causes. Other causes include inflammations of the reproductive organs, general diseases of the mother or of the unborn child, syphilis in the father and death of the fetus from any cause.

Miscarriage may be intentionally induced, either criminally or because some condition of the mother makes it advisable. All unintentional miscarriages, except those resulting from injury, may be traced back to wrong habits of living which, on the part of mother or father, have led to imperfection in the germ cells and to general toxemia and weakness in the mother. Given healthy parents and proper care of the mother during the period of pregnancy, there should be no miscarriage. Even many injuries can be endured without bad effects.

Miscarriage,
Symptoms

Symptoms. The symptoms of a threatened abortion or miscarriage are pain in the back, in the pelvic region or in both places. These are sometimes sharp and intermittent, sometimes almost continuous. There often is a feeling of pressure in the pelvic region at the time of the pain. Generally there is a discharge of bloody fluid from the uterus. After the pains have persisted for a time, sometimes a day or so, gradually increasing in sharpness, the fetus will be discharged. Miscarriage during the earliest stages of a pregnancy (in reality an abortion) causes little pain, the fetus being enveloped in the amniotic bag and the chorion; but after that period there will be a placenta or afterbirth and miscarriage will cause more trouble. Also retention of any of this placental tissue may cause septic poisoning, with dreaded results.

As to the nomenclature of this condition, some authorities give the name *abortion* to the expulsion of a fetus during the first three months of conception; the name *miscarriage* to such expulsion up to the time of viability (ability to live if born), that is to say, about the sixth month; and *premature birth* to expulsion after that period, up to within a short time of the full period of gestation.

Miscarriage,
Treatment of
Threatened

Treatment. When abortion or miscarriage *threatens*, the cause must be considered in order to decide whether it would be best to prevent it. If it definitely can be established that the fetus is dead or some general disease is present, such as typhoid fever, pneumonia, or tuberculosis, no attempt should be made to prevent

the uterus emptying itself. The death of the fetus generally is evidenced by a foul discharge and a cessation of the progress of the signs of pregnancy. The presence of general disease is easily established.

If there is no good reason why the miscarriage should be allowed to proceed, the patient should be made to retire to bed and observe complete rest. A cold hip pack may be applied and renewed every fifteen minutes for an hour or more. The diet should be limited to fruit for a day or two, and if the bowels do not move an enema should be given. After the symptoms have subsided exercise may be resumed gradually, but walks should be short and often repeated rather than long and all general exercise should be taken in the reclining position. A two-minute cool sitz-bath, a neutral sitz for five to ten minutes, or a cold hip pack may be taken daily for a week or so for the tonic effects after danger has passed.

If the abortion or miscarriage seems advisable or *inevitable* no attempt should be made to prevent it. The patient need not retire to bed unless or until the hemorrhage becomes marked, except in those cases where the general health requires it. An enema should be taken before going to bed if there is time, and, in any case, as soon as possible. A physician should be called in order that any necessary surgical treatment may be given promptly. In most cases the miscarriage will soon take place, with symptoms which may resemble those of ordinary labor. If the uterus empties properly and completely, all will be well. The patient should remain in bed for about a week. It would be well to take a day or two of fruit, after which the normal solid food diet may be used, giving special attention to laxative foods, though a full milk diet or a diet of half milk and half water used to the limit of the patient's desire is especially suggested if there is any symptom that indicates possible trouble. Plenty of water should be taken between meals, and enemas should be used as necessary. After getting out of bed an alternate hot and cold sitz-bath may be taken daily for a couple of weeks, to assist in restoring the reproductive organs to their normal condition.

In those cases where the hemorrhage is profuse or where the fetus is slow in being expelled or where the uterus does not empty properly, the physician must be called upon to assist. The most careful aseptic and antiseptic precautions should be observed and the patient should remain in bed long enough to permit full recuperation. In these cases it is advisable to remain on the fruit diet for several days and to follow this by Milk Diet No. 3. This assists in promoting free drainage from the uterus and in healing of the parts. An enema should be taken daily beginning with the second day and continuing until normal movements are obtained. The

Miscarriage,
Treatment of
Inevitable

+

sitz-baths should be taken, as already directed, after the patient gets out of bed.

The treatment of *abortion* is the same as for miscarriage. The symptoms are not usually so severe and there is less danger to the patient. For the management of labor and premature labor and other subjects relating to childbirth see Section 4, Volume IV.

MONOMANIA.—Mania or madness characterized by a single delusion. (See *Insanity*.)

MONOPLÉGIA.—Paralysis of a single member, muscle, or group of muscles. (See *Paralysis* for general treatment.)

MOLE (*Nevus pigmentosus*).—A small pigmented spot on the skin, or growth of a pigmented deposit. Moles may be given the same treatment as *Warts*, which see. (See also *Nevus*.)

MOUTH, INFLAMMATION OF (*Stomatitis*).—There are various forms of stomatitis: Aphthous, vesicular or herpetic, catarrhal, ulcerative, parasitic and gangrenous. These are all but different degrees of the same condition, or different manifestations of the same causes, namely improper diet or feeding, uncleanness and poor general and oral hygiene. Some cases of the ulcerative form are due to the use of mercury as a medicine for other conditions. Stomatitis occurs most frequently in the case of children during the period of dentition. Adults are more likely to have a chronic form of stomatitis.

Symptoms. The symptoms of this disease vary according to the type of the inflammation.

In *catarrhal stomatitis* the mucous membrane of the mouth becomes red, dry and painful and the tongue frequently swollen.

In *aphthous stomatitis*, small ulcerations appear over the inner sides of the lips and cheeks and along the edges of the tongue. The breath is heavy, chewing is painful and there is increased salivation.

In *ulcerative stomatitis* there are severe swelling and redness of the gums, with bleeding and ulcerations. In addition there are swelling of lips, tongue and cheeks, increased salivation and often severe general symptoms. The teeth frequently become loose and the glands beneath the lower jaw may become enlarged.

In *parasitic stomatitis*, the disease is complicated by a vegetable fungus.

In *gangrenous stomatitis*, also called *noma*, and *Cancrum oris*, there is rapid progression of the symptoms. It occurs sometimes in children after severe acute fevers, especially after the measles, and usually attacks subjects who are in a debilitated condition. The condition begins as a severe sloughing ulcer which rapidly becomes gangrenous. This ulcer usually is situated on the inner surface of the cheek, rapidly spreading and perforating the cheek,

Mouth, In-
flammation
of—
Stomatitis

Stomatitis,
Symptoms
of Types

showing on the outside of the face. The cheek-bone sometimes becomes affected. There are extreme prostration and general systemic poisoning. The disease is serious and often fatal.

Treatment. For the various types of stomatitis the constitutional treatment is largely similar, the more severe forms requiring the more intensive care. Acute stomatitis responds quickly if the proper treatment is given. It is seldom necessary to fast completely, as the inflammation is likely to occur in children suffering with malnutrition; hence it usually is best to employ the orange diet instead. Oranges and water may be allowed as desired until the inflammation subsides. Or a diet of strained mixed vegetable broth (unsalted) may be used instead. An enema should be given daily if the bowels do not move satisfactorily of themselves. An antiseptic mouth-wash of salt and water or of boric acid and water and local applications of diluted hydrogen peroxide (never over one-half strength) should be employed three or more times a day, depending upon the severity of the symptoms. The patient should be provided with plenty of fresh air and sunlight and should be encouraged to sleep as much as possible.

Stomatitis
Treatment

When the inflammation has subsided, a diet of milk and oranges should be adopted and adhered to until a normal condition has been restored; or, until the patients (babies) are old enough to adopt solid food. Careful attention must be given to general hygiene, especially to sun-baths. If these cannot be obtained, artificial sunlight should be utilized. In the case of adults, the teeth should be repaired if necessary, all medicine should be stopped. Tobacco must not be used. If a case is properly treated at the start, the gangrenous form of stomatitis will not develop. In the neglected cases, some surgery may be required, but usually the treatment already mentioned will be sufficient. It is important to observe that all sugar, sugar products, syrups and pastries should be withheld from a child recently recovered from stomatitis. If the condition stubbornly persists, further means must be applied to correct the constitutional acidosis which invariably exists in this condition.

MOUTH-BREATHING.—In small children where it is persistent, adenoids may cause this condition. (See *Nasal Defects and Diseases*, page 3539.) Any cold or catarrh which gives rise to a hypertrophic or swollen condition of the nasal passages, may cause mouth-breathing.

Mouth-
Breathing

During waking hours persons should be reminded of the importance of keeping their mouths closed that they will not voluntarily fall into this error. Where there is a tendency to breathe through the open mouth during sleep it is a simple matter to correct it by the use of bandages placed under the chin and

Mouth-
Breathing,
Treatment

Mucous
Colitis

up over the top of the head to keep the mouth securely closed.

MUCOUS COLITIS (*Membranous Colitis*).—An affection of the intestinal tract, characterized by passage from the rectum of rope-like strings of viscid mucus varying in length from a few inches to a foot or more. This discharge is likely to appear in cases of chronic constipation. In some instances there is slight pain when the discharge is copious, after which some internal soreness and discomfort are experienced for a short period. The disease usually occurs in nervous subjects. It usually develops between the ages of twenty and forty years and may last for many years. It is seen much more frequently in males than in females.

Mucous
Colitis,
Treatment

Treatment. Fasting is the most effective method of bringing about a speedy cure. Usually the alimentary tract is in need of a complete rest when symptoms of this malady appear. Therefore, Complete Fast No. 1 is advised for one day, after which Total Fast No. 2 should be adhered to for as long as the patient can endure it without showing signs of weakness. In other words, as long as the patient is able to be up and around, he should continue to fast.

Although a two- or three-day abstinence from food would be of some benefit, yet the fast, if possible, should be continued for ten to twenty days. Then use the fast-breaking routine adapted to the length of the fast and adhere to the instructions given therein. The exclusive milk diet is excellent in cases of this disease, or one may use Raw Diet No. 1 or No. 2, followed with Salad Diets No. 3 and 4, or No. 5 or 6, or three meals of ripe bananas daily, each taken for a few days. Thereafter, almost any food of a wholesome sort may be used, especially the Limited Diets.

Mucous
Colitis,
Exercise

Special Manual Treatments Nos. 11 to 16 or Self-Applied Exercise Movements Nos. 1 to 6 would be of especial value for stimulating the bodily activities. Abdominal packs at body heat should be applied before retiring and allowed to remain in position all night or until dry. These packs may be applied cold if the body readily reacts after their application.

If the person is strong, Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 may be taken in the morning on rising and Hip and Spinal Manipulations Nos. 27 to 32 in the evening before retiring. Colonic irrigations are very valuable.

With the gain of strength the amount of exercise should be increased. Long walks are especially to be recommended when the patient can take them. A suitable vitality-building routine would be especially valuable in this disease.

MULTIPLE SCLEROSIS (*Cerebrospinal Sclerosis or Disseminated Sclerosis*).—This disease of the nervous system is marked by areas of sclerosis or hardening in the brain, the spine, or in both. Pa-



A marked case of parotiditis or mumps. This is an infectious disease of the parotid or salivary gland of the side of the face.

ralysis results, especially in the lower limbs. This is sometimes spasmodic, and sometimes involves weakness or rigidity of the affected parts. Muscular spasm, a dragging gait in walking, tremor of the arms, while active, but not while at rest, are characteristic. Lack of control of the eyes, and failure of vision, frequently are present. The speech also may be affected, and there may be numbness and tingling of the skin. The disease may be slow and insidious in onset, and is of chronic form, although during periods the symptoms may more or less disappear.

Treatment. Vitality-building measures are of the greatest value, especially as in many cases the ailment tends to become progressive, unless checked. Exercise (active and passive) is recommended, walking especially, and manipulative treatments, as described and illustrated in Volume VI, Section 3, are useful. Both manipulation and exercise should be pursued with precaution to avoid overtaking or fatiguing the sufferer. Massage is frequently of great value. The bowels must be kept active, and enemas or mineral oil or other measures applied to insure freedom from constipation. The diet may include fruit juices, fresh fruits, green vegetables, dairy foods, whole wheat products, and such articles as honey, dates and figs. In certain instances the milk diet will be found of value, and may be continued as long as it proves beneficial.

MUMPS (*Infectious Parotitis*).—An acute inflammation of one or both of the parotid glands and occasionally of the other salivary

Mumps

glands. It occurs most often in children. To those who are in a toxemic condition, it is contagious. Mumps is sometimes complicated by inflammation of other glands, especially in neglected cases the testicles and the ovaries, but this rarely occurs when a case is properly treated. One attack renders immunity to further attacks if both parotid glands are affected at once; if but one, the other may become affected later.

Mumps,
Symptoms

Symptoms. Following a period of incubation of 14 to 21 days, the disease suddenly develops with swelling and tenderness which begin in that part of the parotid gland behind the jaw and below the ear. The swelling spreads forward over the jaw and down the neck. It gives a doughy feeling and the skin over it may be reddened. There is pain upon opening the mouth, chewing and swallowing, especially of some acid article of food. The glands of the neck may be swollen. As a rule the disease begins on one side, subsequently extending to the other within one to five days. The submaxillary glands usually are somewhat enlarged. There usually is some elevation of temperature.

The glands attain their maximum size within three to four days and subside within seven to ten. Complications are rare, except inflammation of the testicles (or orchitis). Occasionally the breasts or the generative organs of the female may become inflamed. All complications are rare before the age of 12 years, but are more common in adolescents and adults. If orchitis occurs it usually is one-sided, but results in the destruction of the affected sex gland.

Mumps,
Treatment

Treatment. At the first sign of trouble Complete Fast No. 3 should be immediately adopted, drinking freely of hot water and taking a full enema. A hot abdominal pack also should be applied, in order to increase the activity of the organs in this region and to induce perspiration. Plenty of fresh air is important.

If the symptoms increase and fever is developed, the fast should be continued, drinking cold water instead of hot. The temperature of the enema water may be lowered and a cold abdominal pack used each day instead of the hot. Cold compresses should be applied to the swollen parts, changing them as often as they become warm and continuing for about an hour.

If there are local throbbing and high tension, with high fever, an ice-bag applied over a wet cloth will give much relief, but it must be used only in short applications. A cold pack should be applied to the neck and the jaws at night just before going to sleep and allowed to remain until dry. Camphorated oil is a soothing local application. If bed rest adds to the comfort of the patient it should be observed until the fever is gone. In fact, it is safe, as orchitis is less likely to develop when there is no exertion. Constitutional doses of sunburn are an aid in treatment.

When the acute symptoms have subsided the fast may be broken with orange juice for one day, the taking the whole orange for another day. This may be followed by Milk Diet No. 1 until there has been full recuperation. When the fast is broken the hydriatric treatment may be discontinued, except that it would be well to continue the nightly cold neck packs for a week or so. If the generative organs become affected alternate hot and cold sitz-baths should be taken daily until the inflammation subsides and local cold compresses should be applied several times a day; also the scrotum should be elevated by suitable support, such as an athletic supporter (jock strap). Diathermia through the inflamed gland would be of great value also, and should be secured if possible. Hot Epsom salts compresses are beneficial.

Owing to the fact that many people are more or less toxemic, it would be well to isolate the patient until he is well. Quarantine laws usually enforce such isolation.

MUSCULAR ATROPHY.—This is a chronic disease of the spinal cord, progressive in type and producing weakness and wasting of the related muscles. It is a disease of adult life, commoner in males than in females. The disorder usually affects the limbs, beginning usually with the thumbs, progressing to the hands, forearms, arms and shoulders, then chest and abdomen and finally legs and feet. The wasting becomes marked and extreme. Both the muscular tissue and the fat are affected. Often several members of a family are affected by the disease, showing that it depends on an inherited diminished vitality. It frequently results from injury, though often the exact cause cannot be determined.

Muscular
Atrophy

Treatment. Local measures are of little value in this disease. The treatment must be mainly constitutional and must be devoted to building a superior quality of blood. The patient should begin by treatment of the alimentary canal. Naturally, spinal stimulation, because of its influence upon the nervous system, will be of great benefit for the difficulty is partly due to lack of harmonious nerve adjustment.

Muscular
Atrophy,
Treatment

One may begin the treatment with Complete Fast No. 2, to be adhered to for five to ten days, Fast-Breaking Routine No. 1 or 2 to be used thereafter. An exclusive milk diet is essential for best results, using Milk Diet No. 1 or No. 2. If it is impossible to adhere to this particular diet because of its inconvenience, then Milk Diet No. 11 may be used as a substitute.

After a few weeks of this milk diet, Milk and Fruit Diet No. 1 or No. 3 may be used, thereafter trying some of the combination milk diets which might appeal to the appetite. For instance, Combination Milk Diet No. 5 or 13 may be given a trial. It may be necessary in some instances to adhere to these milk routines for

several months; in fact, considerable care must be used in going back to the ordinary diet. Combination Milk Diets should be the diet of preference for months or years. In nearly all cases of this disease there is a decided inclination to overeat, so this must be carefully avoided. Constipation or any tendency in that direction should have careful attention, for activity of the bowels is imperative.

Muscular
Atrophy,
Manipula-
tions for

Special Manual Treatments No. 11 to 16 or Self-Applied Exercise Movements Nos. 1 to 6 may be taken with great advantage. Exercises of various kinds that stimulate the secretory system and add to the general vitality are emphatically recommended. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 and Leg and Spinal Manipulations Nos. 27 to 32 would be of special value; for instance, the first series in the morning and the second in the evening. Walking, deep breathing and all the various exercises that stimulate functional activity should be taken with persistent regularity. Excesses of all kinds, also anything tending to affect the nerves harmfully, must be strictly avoided. One's energies should be devoted to building up the general health, by routines adapted to the case.

The local aids to be recommended are moderate kneading of the affected parts to stimulate the circulation and the use of the affected muscles to the point of fatigue each day, as recommended under the heading of Special Exercise Treatments in Volume VI. Carefully read the section on this mode of treatment and select such movements as will actively stimulate the tissues of the affected parts. Sun-baths or electrical substitutes to the point of mild sunburn are often powerful aids. Correctly given sinusoidal electric treatments are also beneficial.

One must not expect rapid results in the treatment of this ailment. As a rule one will notice a change for the better within three or four weeks. Though thereafter changes in the condition perhaps may be slow, ultimate recovery may be hoped for if the patient follows the instructions given herein. A slight attack often can be cured in a few months, though a chronic case may take years. In some few instances the wasted tissue cannot be replaced, even though all of the symptoms of the disease have entirely disappeared.

Myocarditis

MYOCARDITIS.—Inflammation of the muscular tissue of the heart. See *Heart, Diseases of*.

MYOPIA.—Near-sightedness. See *Sight, Disturbances of*.

MYOSITIS (*Myitis*).—Inflammation of muscular tissue, or of its connective tissues. See *Inflammation, Acute*. Also *Sprains*, in *First Aid in Accidents and Disease*, Vol. VII, Sec. 5. For general muscular inflammation see *Rheumatism*.

MYXEDEMA.—Degenerative changes in body and mind resulting from atrophy of the thyroid gland. See *Thyroid Gland, Diseases of*.

NAILS, DISEASES OF.—*Ingrowing Nails*, a common disorder of the toe-nails, frequently the result of wearing tight shoes, which cause the sides of the nails to press deeply into the tissues. They often are very painful.

Nails,
Diseases

Onychia is an acute inflammation of the matrix of the nail, attended with swelling, much pain and more or less ulceration, followed by the rotting and crumbling of the nail at its root.

Paronychia (*Felon*, *Panaris* or *Whitlow*). This is an acute inflammation of the tissues around the matrix of the nail, and not a disease of the nail itself. See *Felon*.

Treatment. The first step in the treatment of *ingrowing nails* is removal of the cause. In the case of trouble with the toe-nails, this will require the use of properly fitting shoes to give the toes plenty of space. Ordinarily it will be sufficient to trim the front edges of the nail squarely across and scrape the surface of the center of the back with the edge of a piece of broken glass or a knife, until the thinness of the nail at that point will cause the side edges to draw upward. This will also tend to increase the secretion of more horny matter at the center of the nail and, consequently, less of it at the sides. Accumulated cuticle underneath the ingrowing edges should be removed also. In serious cases it may be necessary to have expert attention, including the removal of the edges of the nail by surgical means.

Nails, Dis-
eases of,
Treatment

Onychia often is of syphilitic origin, so treatment necessarily will involve attention to the primary disease. Local treatment with Epsom salts compresses also is recommended; in some cases a mild antiseptic lotion may be used to advantage. In many cases the entire nail should be removed and opportunity given for a new nail to grow.

In a general way the condition of the nails depends upon that of the general health and state of the blood. Constitutional deficiencies often are manifested by an insufficient formation of the horny matter.

NASAL DEFECTS AND DISEASES.—The nasal passages are subject to various affections, of which the most common are abnormal growths of the adenoid ("gland-like") tissue of the nasopharynx.

Nasal
Defects and
Diseases

Adenoids (*Adenoid Vegetations*). These growths are most frequently observed in young children. The first symptoms of an adenoid are sleeping with the mouth open and inability to breathe through the nose during slumber. As the growths enlarge, nasal breathing becomes increasingly difficult, until respiration takes place wholly through the mouth. The consequence is that the

Adenoids



In the adenoid face, the dull and listless expression is due to obstruction of the nasal passages from the presence of adenoid growths. This condition causes mouth-breathing, sometimes deafness, and even interference with proper mental development.

throat and bronchial tubes suffer from excessive dryness and become a prey to other diseases, while the closing of the nasal passage impairs the middle ear, giving rise to deafness and other aural troubles. Children suffering from adenoids frequently show signs of mental sluggishness, nervousness, poor digestion, etc.

Nasal
Polypus

Nasal Polypus. A growth which obstructs breathing through the nasal passage. Nasal polypi are small, highly vascular tumors attached to the mucous membrane in the upper nasal passages of the nasal cavity by pedicles or stems.

As they usually appear after nasal catarrh or inflammation of the nasal passages, they always are accompanied by a discharge of purulent yellow mucus from nose and throat. In proportion to the size of the obstruction, the throat and the bronchi are affected; the voice becomes permanently thick and there is constant snuffing.

Nosebleed (Epistaxis).—See *Nosebleed*, in alphabetical position, also in *First Aid in Accidents and Disease*. (Vol. VII, Sec. 5.)

Nasal Catarrh.—See *Nose, Chronic Catarrh of*. See also *Ozena*.

Broken Nose.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

Treatment. It is sometimes necessary to resort to surgical methods to cure adenoids. But if they are treated in accordance with the instructions given for catarrh (See *Nose, Chronic Catarrh of*), one may look for great relief without operation. Children often respond to these measures with surprising rapidity and completeness.

Nasal Defects and Diseases, Treatment

Adenoids must be treated as a constitutional difficulty. Though relief sometimes may be slow, yet an adherence to the routine which reduces the systemic toxemia and adds to the richness and vitality of the blood will bring considerable benefit, often complete removal of the growths. Removal by "finger surgery," a special form of finger manipulation used by some osteopathic physicians, often is done quickly, painlessly, bloodlessly, and effectively.

The diet should be limited for a time and all sugar and sugar products avoided. Starches must be given in extreme moderation. Exercise, fresh air, sunshine and cool baths (usually and preferably by wet-hand friction bath) are all important. (See *Nose, Chronic Catarrh of*, also *Catarrh* for general treatment.)

The foregoing statements apply also to nasal polypus. It may be that surgery is more frequently necessary in connection with this malady than in the case of adenoids, but it should not be resorted to until natural methods have been tried. Adenoids and nasal polypus must be treated as true blood troubles, so unless the blood and general condition are made more nearly normal there may be return even after complete surgical removal.

NAUSEA.—A sensation of sickness of the stomach, with a desire to vomit. This is not a disease in itself, but a symptom of practically all acute general diseases. It also may result from chronic affections of stomach, intestines, liver and gall-bladder. It may occur during pregnancy and may follow acute pain or nervous shock.

Nausea

The treatment of nausea should always be directed toward the causes of the condition. However, since it indicates the need for cleansing the alimentary tract, the free drinking of water and the use of hot enemas always will give relief. Free drinking will aid in cleansing the stomach by vomiting, and also will aid in cleansing the upper intestines through stimulation of the downward peristalsis. If vomiting does not occur naturally, this can be induced after copiously drinking water by placing the finger in the throat. Cracked ice, melted in the mouth, also is useful.

If the nausea persists after the stomach has been emptied, rest in the reclining position, with the application of hot abdominal compresses usually will give relief. For the nausea of pregnancy the knee-chest position often gives great relief. Of course, no food should be permitted while the nausea persists. In the case of pregnant women fresh fruit and concentrated fresh spinach or

carrot juice may be allowed if especially desired or unsweetened fruit juices may be allowed in any desired quantity. In severe and persistent cases nerve inhibition by pressure along the lower dorsal spine or concussion of the fifth dorsal vertebra may be tried.

In all cases it is important to seek the cause of the nausea and remove that as soon as possible, not only to assist in giving immediate relief but to prevent further trouble in the future. Often a scientific blood-chemical search of the blood-stream will reveal the causes. (See *Stomach Diseases* and *Vomiting*.)

Navel
Diseases

NAVEL (UMBILICAL) DISEASES.—In young children and infants the navel is liable to various disorders.

Navel Inflammation is brought about by lack of cleanliness, or by irritation due to the ill health of the child.

Hemorrhage from the Navel occasionally occurs in the case of infants who bleed at other parts of the body—including mouth and anus.

Umbilical Rupture or Hernia is likely to take place within a few weeks after birth when disorders of the alimentary tract produce a distention of the small intestine. The umbilical ring first expands and this forms a pouch into which one of the folds of the small intestine may be forced. Sometimes this defect exists at birth—congenital hernia.

Navel
Diseases,
Treatment

Treatment. Cleanliness of the navel, using hot water and soap at least once a day, usually will cure a case of inflammation in a short time.

Hemorrhage of the navel, usually slight, can be stopped by applying cold water or cold wet cloths, or by gentle pressure with sterile gauze.

Navel
Rupture,
Treatment

Rupture of the navel requires the use of a support, which may take the form of a large button or any article of similar shape that will keep the intestine from protruding. This may be secured by means of adhesive tape, or a bandage similar to the usual binder. Where the rupture is large it may be necessary to have a specially made truss. Or the trouble may be remedied by using a piece of broad adhesive plaster. This is applied first on one side. Then, after reducing the rupture thoroughly, the skin on the other side is stretched towards or over the navel before applying the other half of the adhesive tape on that side.

Coincidentally, attention should be given to the diet. The little patient should be regularly bathed and perhaps gently exercised, and care should be taken that his garments are so adjusted that they do not aggravate the trouble.

As soon as the child is old enough to take exercise in any form he should be taught various special movements that develop the muscles of the abdominal region. This will not only help to remedy

the immediate trouble, but will prevent any recurrence of the difficulty. (See also *Rupture*.)

NEOPLASM.—A new growth or tumor. See *Tumors*.

NEPHRITIS.—See *Kidneys, Diseases of*.

NERVES, DISEASES OF.—See *Hysteria, Lumbago, Neurasthenia, Neuralgia, Neuritis, Paralysis, Sciatica*.

NERVOUS DEBILITY.—See *Neurasthenia*.

NETTLE RASH.—See *Hives*.

NEURALGIA.—An acute pain along the course of a nerve, induced by some irritation of the controlling center of the nerve rather than by an actual inflammation of the part. Strictly speaking, neuralgia is only a symptom of some other abnormality. It may result from a general toxemia without other noticeable symptoms, though often there are worry or fatigue; or it may be associated with anemia, gout, diabetes, or infectious fevers; or it may result from unusual exposure, injury, chronic metallic poisoning, or the excessive use of alcohol and tobacco. Pressure from spinal subluxations also is a frequent cause. In all cases, except those due to injuries or spinal subluxations resulting from injury, the fundamental causes may be considered wrong habits of living and the resulting toxemia.

Neuralgia

Symptoms. The symptoms of neuralgia are acute and often violent pain along the course of a sensory nerve. The pain is more or less spasmodic in character and is not accompanied by any acute inflammation of the nerve itself. As neuralgia is a complication of many diseases, it may appear in any part of the body. But it is most frequent in the region of the forehead, face, shoulder or upper arm and the chest.

Neuralgia,
Symptoms

Persons who suffer from neuralgia frequently are the victims of severe anemia or general debility. They usually are of the constantly active type and are in perpetual motion—much of the work they do being totally unnecessary and many of the pleasures they enjoy being of the nerve-destroying kinds.

Treatment. Beyond all question neuralgia is distinctly due to an abnormal condition of the blood, so can be treated only through the purification of this stream. In nearly every instance a fast with the free drinking of water, if continued for five to ten days, will effect a cure. However, where the attacks recur at frequent intervals the cure of one attack will not free the patient from future trouble. It is necessary, therefore, persistently to follow a method of toxin elimination and constitutional upbuilding.

Neuralgia,
Treatment

Generally in an acute attack the best initial measure would be Complete Fast No. 3, to be adhered to as long as the symptoms continue. The only allowable deviation from this fast would be oranges or lemons in limited quantities, where there is a strong



Hot compresses to face or ear may be applied for neuralgia, earache, otitis, mumps, toothache and other local disorders.

craving for acid fruits. As the acute symptoms of the disease disappear, follow Limited Diet No. 1 for a day or two, after which take Limited Diet No. 7 or No. 8 for a few days, then take care to combine natural foods properly and be very careful to avoid overeating.

Special Manual Treatments Nos. 1 to 10 will be found of value, and, as the symptoms of the complaint subside, Nos. 11 to 16 will be beneficial. Often the latter series will eliminate all symptoms almost immediately, provided that the patient is strong enough to take the exercises outlined therein. The lo-

cal treatment of most value is the application of heat to the painful parts. This heat may be from an infra-red generator, special heating electric bulb (particularly blue), fomentations, hot-water bottle, hot sand-bag, electric heating pad, or any other convenient means. Diathermia through the painful area is especially valuable. Sometimes hot applications may be followed or interrupted by brief applications of cold water. Mild sunburn also is of value.

Where there is constipation, a full enema is advised when beginning the treatment, and a small enema each day while the acute symptoms persist.

Hot abdominal packs are used sometimes. They are best applied at night and allowed to remain until dry, or until morning, provided the patient sleeps well. If the patient is at all feverish these packs should be given cold.

The constitutional treatment includes a vitality-building routine and the adherence to a diet that agrees with and fully nourishes the patient. One cause of neuralgia often is a deficient or unbalanced diet. Raw foods, therefore, when well balanced are best for general use, at least, until the disorder is corrected. Air-baths and sun-baths are of value because of their tonic effect upon the entire nervous system.

Exercises of all kinds adapted to one's strength will greatly assist in effecting a cure.

NEURASTHENIA.—Neurasthenia is the name given to a group of symptoms due to debility or exhaustion of the nerve-centers. These symptoms may, in turn, be referred to several causes, including excesses of any kind, failure to observe dietetic or hygienic laws and so forth.

Neuras-
thenia

Neurasthenia usually appears between the ages of twenty-five and fifty years. It is commoner in males than in females. Apparently many persons are born with neurasthenic tendency which permits the disorder to develop in later years. It may be induced by prolonged worry, sexual excesses, severe shock, or as an aftermath of certain diseases.

Symptoms. The victims exhibit lack of energy, liability to fatigue, a sense of fullness at the top of the head, pain in the back, impaired memory, bloating after meals, indigestion, constipation, impotence in the male, retention or excess of the menses in the female and countless other symptoms. There are loss of weight, anemia, headache, insomnia, dread of the future, often fear of death, poverty or insanity. Naturally, all these symptoms will not appear in any one case. A single case may show few or many symptoms, which may be general or for the most part centered in one organ or system of organs. Thus the majority of symptoms may center in the sexual system, the individual becoming a "sexual neurasthenic." Whatever the symptoms, they are greatly magnified in importance by the patient.

Neuras-
thenia,
Symptoms

Treatment. This disease sometimes is hard to cure because it is as much mental as it is physical, so the main difficulty in bringing about a recovery is in persuading the patient to assume a hopeful frame of mind. The sufferer usually looks upon his case as incurable. He is hopeless and despondent; he has to be roused by appeals to his manhood and self-esteem. Then begin a training process that develops him muscularly as well as mentally. In fact, the patient must be put through a course that, as nearly as possible, will gradually turn him into an athlete. Many cases of neurasthenia have been cured by this method. Failure usually is due to the patient neglecting to follow instructions faithfully. Such a course is the only means by which the disease can be cured.

Neuras-
thenia, Treat-
ment

In one case a patient suffering from neurasthenia was of the opinion that he was past hope, so had to be assured daily that he would positively recover—this in order to insure cooperation on his part, which is essential to successful treatment. Recovery took place in due time, and to show the remarkable change effected the fact may be cited that, at the end of his treatment, he took long walks, covering a distance of many miles daily. After remaining under drugless treatment for a little over four months he walked home, a distance of eighty miles, in two days, consuming twenty-four hours' actual walking-time in so doing. The remarkable physiological and psychological changes for the better that were wrought in his case will be obvious.

Changes can be made in nearly every case of this complaint. While the symptoms always include mental disturbances, yet the root of the evil is in the polluted blood-supply. The poisons that should have been eliminated from the blood by the excretory organs are carried to all parts of the body, dissipating the energy, drugging the brain and destroying the energy and enthusiasm associated with perfect health.

In this disease partial fasting is most valuable, although where the weight is normal or above normal, a complete fast may be continued for a considerable time. Where the weight is below normal, a partial fast of three to five days probably will be sufficient. This period may be extended as long as the patient is capable of physical activity.

Treatment may begin with Partial Fasting Routine No. 1, consisting of an orange, or one-half grapefruit or four ounces of the juice of either every two hours during the day. In nearly all cases of neurasthenia a milk diet may be taken with benefit, especially if the patient is underweight. If the weight is normal or above normal a few days of the exclusive milk diet may be followed by a limited diet.

Overeating is a fault common to nearly all neurasthenics. Therefore, when the milk diet precedes a limited diet the patient should take only that amount of food which will maintain his weight and strength, then after a time take Limited Diet No. 2, 4 or 7, allowing the appetite to dictate which of these is most desirable. The chosen diet should be followed for at least one day. The only allowable exception to this rule of limited food intake is the drinking of large quantities of milk where increased weight is advisable in order to add to the vitality. The various salad diets and raw diets also may be taken with benefit. In many cases it will be necessary to use enemas and adopt other measures for relieving constipation. (See *Constipation*.)

It is of the utmost importance that the nervous system be

allowed to recover normal tone. For this purpose, in addition to a proper diet, Special Manual Treatments Nos. 11 to 16 and Self-Applied Exercise Movements Nos. 1 to 6 are especially recommended. Where the patient is physically strong a great deal of exercise is advised, but balanced by plenty of complete relaxation. When on the milk diet such exercise should be taken in the morning before beginning the use of the milk. Walking and deep breathing are of especial value. Running is advised where the patient has sufficient strength to undertake it. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18; also Hip and Spinal Manipulations Nos. 27 to 32 may be used if the strength permits, though the patient should not take more than one series of movements at any one time. Sun-baths carried to the point of mild sunburn over the entire body are valuable. A general vitality-building routine should be selected, one which is adapted to the strength of the patient and the instructions followed faithfully. (See *Dietary and Vitality-Building Routines*, Vol. VII, Sec. 6.)

Neuras-
thenia, Ex-
ercise in

Especially when not on the milk diet cold-water bathing, suited to the recuperative power of the patient, will be found of incalculable value as a means of building up nervous vigor. The shower bath and the drip-sheet may be used with benefit. Air-baths and sun-baths likewise have a splendid tonic effect upon the nervous system, and should be taken regularly. The daily neutral baths (98 degrees to 100 degrees F.), usually advised in connection with the milk diet, may be used in some cases before retiring at night. Massage will prove of value in many cases, as will static and high-frequency electricity. Suggestions and autosuggestion should be employed in most cases. Occupation is of great importance in numerous cases. Any light task or any work within the patient's strength may be indulged in; in fact, should be encouraged. Too much sympathy should be avoided. Traveling or change of environment, also sea-bathing, may be advisable occasionally. Eyestrain should be corrected, by proper eye treatment. In a few cases organotherapy may be advisable.

Neuras-
thenia,
Hydro-
therapy in

In this disease slow recovery is the rule. A slight change for the better within a month or two is all that usually can be expected. In some cases from one to three or four years are required to bring about satisfactory results, yet definite and complete cures have been obtained in three or four months. If one will make consistent efforts, the muscular system, the strength of the internal organs and the chemical quality of the blood will be so changed for the better that recovery, sooner or later, may surely be anticipated.

NEURITIS.—An inflammation of a nerve, or nerves, especially those of the arms and the costal regions. If several nerves are affected it is known as multiple neuritis. Sometimes the name of

Neuritis

the affected nerve is used to indicate the abnormality, such as brachial neuritis, involving the brachial nerve in the shoulder and the upper arm. However, the name of the inflammation matters little. The important thing is the cause. The fundamental causes in all cases are wrong habits of living, producing a toxemia and exhaustion of nervous energy, except possibly in those instances where the inflammation is the result of some injury (crushing, tearing or severing, or a strain of the nerve) or from lead-poisoning due to one's occupation. But even in these few cases, wrong habits of living render one more susceptible.

Neuritis, especially multiple neuritis, may be a complication of syphilis, malaria, rheumatism, typhoid fever, diphtheria, or one of a few other diseases, or a result of alcoholism, lead, arsenic or silver poisoning. A deficiency of Vitamin B in the diet produces a disease called beriberi, the chief symptom of which is multiple neuritis and an inflammation of the heart muscle. The excessive use of alcohol is especially prone to produce neuritis. A multiple neuritis may be so severe as to produce death; but any attack, even a mild one, is painful.

**Neuritis,
Symptoms**

Symptoms. The symptoms of neuritis may be severe. They are somewhat similar to those of neuralgia; but in the case of neuritis the nerve itself is inflamed, a condition tending to produce more severe symptoms than is the condition responsible for neuralgia. There usually is extremely violent pain, especially when the affected part is subjected to voluntary movement. When the inflammation is in the main nerve trunk of the leg it is called *sciatica*; when it is in the nerves in the lumbar region it is called *lumbago*.

**Neuritis,
Multiple**

Multiple Neuritis is attended by the symptoms of pain, numbness, loss of muscular control, especially of some of the muscles below the elbow and below the knee, causing wrist-drop and knee-drop respectively (inability to raise the hand or the foot in extension) and sometimes muscular atrophy and mental symptoms. It is the direct result of the effect of poisons in the blood. The inflammation is most intense at the extremities of the nerves.

Beriberi

Beriberi is regarded by some as an epidemic form of multiple neuritis, though it now seems well established that it is due to a deficiency of Vitamin B in the diet. For the past generation evidence has been accumulating that substitution of a diet including brown unpolished rice conquers this form of malnutrition and its consequent characteristic disease. (See *Beriberi*.)

**Neuritis,
Treatment**

Treatment. The treatment of neuritis will depend somewhat on the cause, but always should be constitutional as well as local. Dependence upon local treatment alone is not advisable and upon the use of drugs alone is to be whole-heartedly condemned. Drugs

always interfere with the curative process of the body. Practically all cases are due to toxemia in some degree, so better elimination is needed. If the nerve inflammation is due to some other disease, the chief treatment must be directed toward it, adding whatever local measures may be required for the relief of pain and the correction of any local abnormality.

For all cases of neuritis where the nerve inflammation is the chief symptom, and particularly in cases of multiple neuritis, a complete fast would be advisable, employing Complete Fast No. 3 until the acute symptoms subside. An enema should be taken daily during this period. Adjustment of any spinal subluxations should be promptly attended to. In case of general neuritis no general manipulation or massage should be used, as it will only irritate the nerves and aggravate the inflammation; but in local neuritis such treatment would be of some value. Rest of the affected part, and in severe cases general complete rest, is necessary.

Local hot applications usually will be the most effective to relieve pain. The heat may be given by any convenient means, especially by fomentations, infra-red, dry "baking" and diathermia. See also the local treatments suggested for neuralgia, as all of these are of value. In cases of multiple neuritis, a full hot-blanket pack should be given, not only for the relief of the pain but quickly to relieve the body of a part of the toxemia. If there is much fever, however, this pack may be changed to the cold wet-sheet pack, employing plenty of blankets and hot-water bottles in order to bring about a prompt reaction. When this has been obtained, the hot-water bottles may be removed. Plenty of fresh air should be provided, to increase the elimination through the lungs.

When the acute symptoms have subsided, the fast may be broken by using a fast-breaking routine appropriate to its length and following with Milk Diet No. 1. The milk diet is especially valuable, because it completely provides every element for nourishing the nerves, thereby bringing about rapid recuperation. While on the milk diet, after the pain is greatly reduced, Special Manual Treatments 1 to 10 may be employed, also general bodily manipulation. The neutral immersion bath may be taken instead of the body packs, and the enemas may be discontinued as soon as normal bowel evacuations are obtained, but may be returned to at any time when occasion demands.

When changing from the milk diet, which may be done at any time after recuperation has been complete or assured, Combination Milk Diet Nos. 2 or 4 or Milk and Fruit Diet Nos. 1 or 3 may be taken, according to appetite. Following this, choose such combination diets as fancy may dictate. It will not make a great deal of difference which of these diets is employed, though overeating

Neuritis,
Local Treat-
ment

must be avoided. When one eats beyond one's digestive capacity and bodily needs, more nervous energy is employed to dispose of the excess than is restored by that which is digested and assimilated; besides, such eating adds to the systemic toxemia. It is these conditions which have much to do with beginning a neuritis, so they will have an even greater tendency to cause a recurrence in the once-weakened and inflamed nerves. It is better to use one of the Limited Diets (especially No. 1, 2 or 5) if one's digestion and assimilation are so good as to permit one easily to gain weight above normal.

People who have neuritis are likely to have some sexual irritation, such as some urethral inflammation or as results of over-indulgence sexually, perhaps in some cases sexual starvation. A normal sex life is necessary, though during acute symptoms all sexual stimulation should be avoided; and in case of pathological sexual disorder this should be corrected by suitable treatment.

As most people who suffer from neuritis are "busy-bodies," in that they are incessantly at work, much of which is not really required, it is necessary that they take life and themselves and their work less seriously. They must learn how to relax, how to let non-essential work go, how to play and to enjoy life. The last they may not be able to do while in pain; but if they do the others they will find life becoming less a burden and more a joy.

The treatment for multiple neuritis should be the same as for the simple form of neuritis.

Neurosis

NEUROSIS.—A functional nervous disease, not dependent upon any evident lesion. (See *Occupational Neurosis*.)

NEVUS.—Discoloration or blemish of skin, of various kinds and from various causes, sometimes from dilated blood-vessels. (See *Warts* for treatment.)

Night Sweats

NIGHT SWEATS.—This is a frequent symptom in tuberculosis and other constitutional depletions. It usually needs no special treatment, but may be palliated by tepid baths just before retiring, or a dry hot-air bath, a wet-sheet rub, chest compresses, cold compresses to the abdomen, or simple sponging with cool water. (See *Tuberculosis*.)

Nightmare

NIGHTMARE.—A horribly distressing dream attended by a sense of suffocation and with inability to produce muscular movements. These dreams practically always are due to digestive disturbances induced by overeating and the use of rich concentrated food and complicated dishes and menus. Nightmares are especially likely to occur in persons suffering with nervous depletion or nerve irritation. Any wrong habits of living may be predisposing factors; so may overwork, mental strain, worry, and eyestrain; but without the dietetic errors these dreams would not be likely to occur.

Symptoms. The sleeper may be and often is unable to cry out for help or to break away from some seemingly impending catastrophe. He awakens from sleep with a violent start, often perspiring and gasping for breath and perhaps screaming terrifyingly, under the delusion that some frightful disaster is about to overwhelm him. Often it requires considerable time before the person's terror is calmed, even with the aid of some other person who endeavors to reassure him. Usually when a light is turned on the fear disappears; but in some cases it lingers even in the light, the person perhaps still cowering or whimpering or screaming, as if in deadly fear. There may be more than one attack during the same night, but often there is but one; and there may be frequent or infrequent dreams of this nature.

Nightmare,
Symptoms

Treatment. Since overeating is the chief cause of this difficulty, the reduction in the quantity of food is the main item of treatment. The evening meal, especially, should be light. It should not consist of more than three or four plainly prepared, easily digested foods or cooked foods and the patient should stop eating just before he is satisfied. One of the items used should be raw vegetable salad. The total quantity of food taken during the day should be just sufficient to maintain weight and strength. But strictly natural foods must be used, in order that the body may be completely nourished.

Nightmare,
Treatment

Due attention should be given to exercise, deep breathing and all general health-building measures, to increase the vitality as well as to improve the digestion. If one has such dreams frequently it would be well to take a short fast in order to rest and cleanse the digestive system. Complete Fast No. 3 would be best, preferably followed by Fast-Breaking Routine No. 1. Enemas should be used while fasting and when needed afterward. The milk diet would be helpful after the fast, but it is not absolutely necessary. Any normal solid-food diet may be employed if the milk diet is not convenient.

If eyestrain is present, eye relaxation and cold eye-baths should be employed regularly. If mental causes seem to be partly responsible for the nightmares, attention should be given to the measures described under *Mental and Psychic Healing* (Vol. VI, Sec. 7.) Children who awaken during the night with symptoms of fright and terror, with the alarm persisting for a time in a state of semi-consciousness or confusion (a condition called *Night-terrors*, or *Pavor nocturnus*) should have particular attention paid to their evening meals, as regards quantity, kind, and combination.

NOMA (*Gangrenous Stomatitis*; also called *Cancrum oris*).—See *Gangrenous Stomatitis* under *Mouth, Inflammation of*.

NOSE, DISEASES OF.—See *Nasal Defects and Diseases*.

Nosebleed *NOSEBLEED (Epistaxis).*—Bleeding from the nose is a symptom rather than a disease, but since it is associated with a great variety of abnormalities and requires special treatment it is considered under its own heading here. In addition to injury, nosebleed may result from polypus, adenoids, scurvy, purpura, hemophilia, plethora, acute fever diseases, high blood pressure, heart, liver, kidney disease, and any catarrhal inflammation of the mucous membrane. The real source of most of these causative conditions is wrong habits of living. Often in high blood pressure nosebleed spares one from a cerebral hemorrhage or apoplexy.

Nosebleed, Treatment *Treatment.* In case of high blood pressure it may not be advisable to attempt to check a moderate nosebleed. However, in most cases a nosebleed should not continue long. Various measures may be tried for immediate relief. Usually it is effective to stand upright against a wall, head thrown somewhat back, the arms extended overhead as high as possible, and breathe quietly. If this fails, try snuffing cold water containing salt or lemon juice up the nose. At the same time apply a cold neck compress, to be kept cold.

If it is necessary for the patient to be in a recumbent position, the head should be thrown back and cold water or ice applied above the nose and back of the ears. This treatment may be tried in any case. If the bleeding does not stop, pack the nostrils with sterile cotton or gauze. If the bleeding is severe and prolonged, especially if there has been an injury, it is well to call a doctor, as it may be necessary to use special instruments and methods. Other forms of treatment, even the local application of an astringent, may appear to be necessary. Often merely pressure upon the nose, pinching one or both nostrils, will check the flow, though one must be careful in using the method to avoid the possibility of the blood flowing back into the mouth or the throat. No attempt should be made to check a nosebleed resulting from head injury.

If there is some definite abnormality which may be responsible for the bleeding, appropriate treatment should be directed towards this until the causes have been removed. They may recur at any time. See under the respective headings of the various diseases mentioned above as being likely to cause nosebleed.

Nose, Chronic Catarrh of *NOSE, CHRONIC CATARRH OF.*—Nasal catarrh might be termed a universal disorder. Nearly everyone suffers from it occasionally and there are thousands who become chronic sufferers.

Catarrh of the throat usually is an extension of nasal catarrh, though this condition may appear in any mucous membrane independently of similar affection elsewhere.

Catarrh of the nasal passages is indicated by the frequent necessity for clearing the nose. Catarrh of the throat is always

accompanied by hawking, spitting and coughing. These symptoms usually are more noticeable shortly after arising in the morning.

Catarrh can develop in the mucous membrane of almost any part of the body. It is simply an effort on the part of the functional system to rid the blood of surplus impurities. The organs that generally throw off these impurities are overworked and unable to eliminate the surplus which accumulates. Some other channel, therefore, must be found for ridding the body of this effete matter. In this manner catarrh may "extend."

Chronic
Nasal
Catarrh,
Causes

While catarrh is not so prevalent in high, dry climates, it cannot be maintained that a damp climate is the cause of it. The damp atmosphere may not admit of such free evaporation or perspiration as the dry, but one should dispel from his mind the idea that climate is the sole cause of catarrh. Except in childhood, the cause is within one's own control and can be removed if one is willing to take the time and trouble. In childhood the cause is within control of those responsible for the diet and general care of the child.

Treatment. The treatment of this ailment must of necessity be constitutional as well as local. It will be necessary first to cleanse the body of impurities and awaken the depurating organs that they may more actively perform their functions, adopting, at the same time, all natural methods for building up general functional vigor. If subject to any injurious habits or conditions, these must be discontinued absolutely and at once.

The skin, lungs, kidneys and bowels are the great purifying organs of the body, so methods must be adopted to help these organs to do their work. The use of proper foods and the free drinking of water should enable one to keep the bowels open and regular; but if any difficulty is experienced in this way, use enemias daily at first and then two or three days apart, if necessary, though bran and mineral oil should be used later if the above measures do not serve the purpose.

Chronic
Nasal
Catarrh,
Treatment

Local treatment consisting of nasal douches and sprays, of solutions of salt or boric acid and water, may be employed, as well as vapor inhalations. Free drinking of water will stimulate increased activity of the pores and the kidneys.

Active exercise is an important factor in the treatment of this disease. It not only develops the muscular system, but strengthens the functional organs and stimulates the various depurating processes. Any system of movements that actively employs all the muscles of the body is satisfactory. Vigorous out-of-door sports and games are of great value.

Long walks in the open air, with deep breathing exercises, are particularly beneficial, so one should walk each day until slightly fatigued. Day by day, as the endurance improves, one should

Chronic
Nasal
Catarrh,
Exercise in

increase the length of his walks until able to spend from two to five hours in the open air, engaged in this excellent exercise.

The necessity for pure air and sunshine at all times cannot be too strongly emphasized. Live out of doors as much as possible and be sure the living rooms are thoroughly ventilated. Open the windows wide at night and at all times see that the air breathed is as pure as the outside atmosphere. Do not fear a draft, for it is only a current of air, and will ensure you a plentiful supply of the life-giving oxygen. Breathe diaphragmatically, expanding first in the region of the abdomen and then gradually filling the entire chest.

Special attention must be given to the skin. The pores must be aroused to the greatest activity in eliminating impurities. The dry friction bath will be found invaluable for this purpose. Following this, the skin is in a condition to react readily from a cold-water bath. If one is especially vigorous, use the "natural bath" or the cold sitz-bath, immersing the hips in a tub of cold water, after which sponge the entire body and finally rub thoroughly dry. If full-blooded, it would be well to put on the underwear with the skin still wet, since the following vigorous reaction will greatly increase the activity of the pores. If one does not react from a cold bath readily, one should use water at a more moderate temperature, gradually accustoming oneself to the use of colder water. (See *Water and Health*, Vol. VI, Sec. 2.)

Catarrh can be readily and quickly cured in many instances by giving all parts of the body free access to the outside air. Savages who go without clothing know nothing of catarrh. The more clothing one wears, the more inclination one will have towards catarrh. The ordinary habit of bundling up in winter is the most prolific cause of colds, and of the catarrh that frequently accompanies or follows them.

Do not use too much covering at night. Dress as lightly as is consistent with warmth. Linen or cotton under-garments are far better than woolen worn next to the skin. Take air-baths at every opportunity, removing the clothing and walking about the room nude with the windows wide open. It will be of especial advantage if one can live in the country or at least where one can walk without clothing in the open air and take sun-baths at the same time. Air- and sun-baths produce a remarkably invigorating and tonic effect and should be of great assistance in effecting a cure.

A diet must be adopted of such quantity and quality as not to add to the impurities already seeking an outlet. The greatest care should be used not to overeat. Thoroughly masticate every morsel of food. If one masticates properly and satisfies his thirst between meals there should be but little desire for liquids during

Chronic
Nasal
Catarrh,
Baths in

Chronic
Nasal
Catarrh,
Diet in

a meal. Live on pure fresh juice—orange, grapefruit, apple or grape—when treating the disease in its acute stages and in beginning treatment of the chronic symptoms for two to five days, at least. In fact, it will be well to take a short fast at any time that one has no appetite. Following this an appetite usually will appear.

Meat, cheese and fish should be used sparingly. It would be far better to avoid them entirely in most cases if one can secure a proper variety of other food to insure proper nourishment. Ripe fruits, green salads, cereals and nuts are recommended. (See Limited Diets, Vol. VII, Sec. 6.) If cooked food has been used, it would be of great advantage to use uncooked food with each meal. Follow the appetite as much as possible, provided the foods found most palatable are also wholesome and nutritious.

Never eat anything repulsive to the taste, for enjoyment of food is essential to good digestion. Complicated fancy dishes, pastries and rich, super-cooked food should be avoided. Milk and eggs may be used moderately if the appetite calls for them, though skim milk, whether sweet or sour, is better than whole milk, because fats of all kinds help “feed” catarrhal conditions. The same is true of sugars. If the patient feels a strong craving for meat, eggs may be used as a substitute, although beans and peas (the ripe seeds) would prove of value in this way. The most important need, so far as food is concerned, is to provide an abundance of alkalizing elements, such as are found in salads, green and leafy vegetables and fresh fruits. These should predominate in the regular diet in every case. The influence of the mental attitude is important.

In short, the sufferer from catarrh should follow a general vitality-building routine (See Volume VII, Section 6) being careful to bear in mind the detailed suggestions given here. In a very stubborn or serious case, fasting may be necessary to secure the most perfect results, Complete Fast No. 2 or No. 5 being suggested, preferably the latter in many cases, always adopting the appropriate fast-breaking routine determined by the length of the fast. If it is desired to use a nasal spray or douche, plain salt water or an oily spray is satisfactory.

Special Manual Treatments Nos. 1 to 10, directly affecting the cervical spine, are especially recommended, though spinal stimulation in general with Head and Neck, Back and Shoulder Movements described in Vol. VI would be of advantage. Electric-light cabinet baths or other sweating procedures twice a week should be of much value in almost any case, and electric substitutes for sun-baths should be used during seasons when natural heat and sunlight are deficient.

NOSTALGIA.—See *Homesickness*.

Chronic
Nasal
Catarrh,
Fasting in

NUMBNESS.—See *Paralysis* for proper treatment.

Nympho-
mania

NYMPHOMANIA.—This unfortunate condition in women is characterized by a morbid and apparently irresistible sexual desire, so much so that the victim becomes obsessed with sensuous thoughts and longings. It frequently becomes so overwhelming that she cannot control it and she becomes so sexually excited in the presence of the opposite sex as to make it palpable. It is a matter of the greatest humiliation to the victim, whom it often causes to become despondent and depressed, even to the point of mental unbalance or suicide.

This condition, as a rule, is produced by irritation, inflammation or itching of the vulva or other parts. It sometimes comes from overdevelopment or oversensitiveness of the clitoris so that the simple touching of the parts with the clothing is enough to keep up this desire. (See *Pruritus vulvæ*.) Constipation also has an influence in producing this condition in some persons.

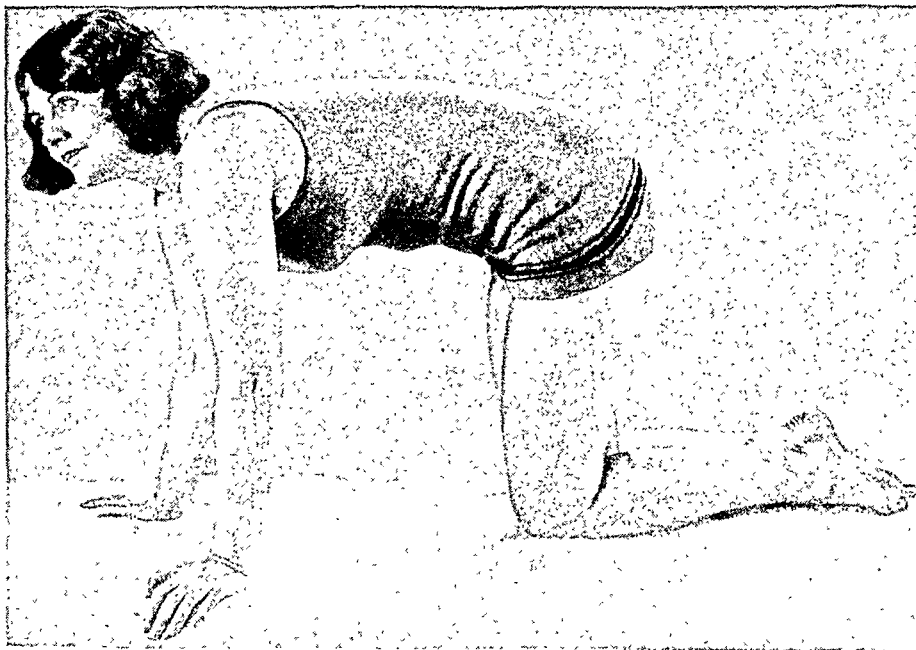
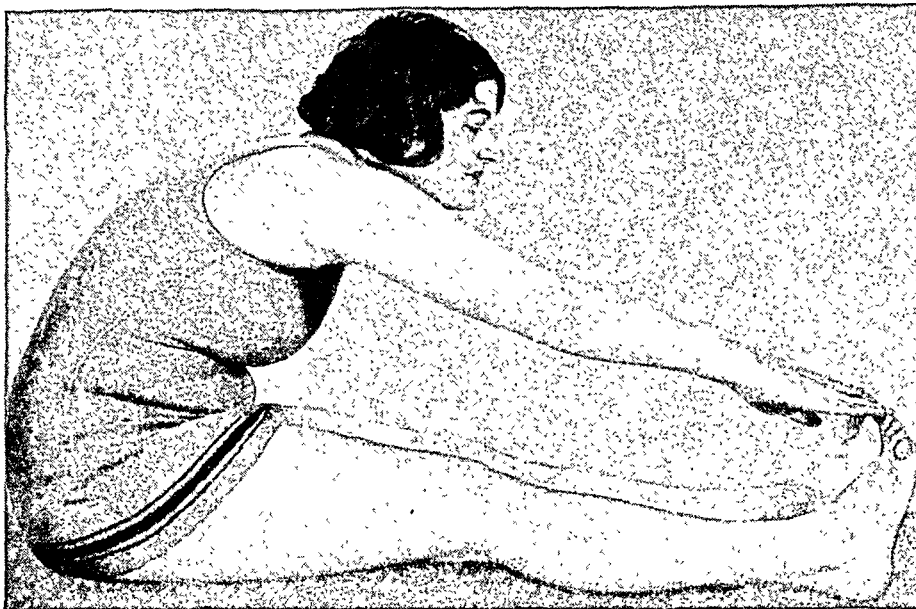
Treatment. Treatment should involve ascertaining as soon as possible the probable cause of the condition. Constipation should be overcome by methods described in this volume. Pruritus also should be treated in the manner prescribed under that head. Circumcision sometimes may be necessary.

Constitutional measures to build up the body, especially the nerves, are of the utmost importance. There should be daily cold baths and plenty of outdoor exercise. Long walks continued until thoroughly fatigued once or twice daily are especially commended. The daily cold sitz-bath is to be recommended, though when the sexual impulses are the strongest cold wet packs to the upper spine are of great value in inhibiting the desire. A light and non-stimulating diet should be adopted. Careful reading of the discussion of sexual hygiene and of mental attitude in this work is recommended. Lascivious ideas, talk, books, stories, etc., must be set aside.

Obesity

OBESITY.—It is hardly necessary to define in detail the chief symptom of this complaint, for it is familiar to everyone. When one acquires more tissue than one can comfortably carry, the result is obesity. The ability to "get fat," however, is not by any means always a sign of disease; it is simply an indication of unusually strong assimilative organs. The remedy, therefore, for obesity is obvious—eat less. Fat means that one is eating more food than one needs, so the excess is being deposited in various parts of the body.

- The bear stuffs himself with food throughout the summer and so lays by enough fatty tissue to last him through his long hibernation during the winter. Persons suffering from obesity approximate the physical characteristics of the bear in their ability to store up surplus fat, while they do not have the prolonged fasting period



A familiar exercise for weight reduction begins with lying at full length and then bringing the body upward and the hands forward so as to touch the toes, as here illustrated. The movement may be repeated as many times as endurance permits.

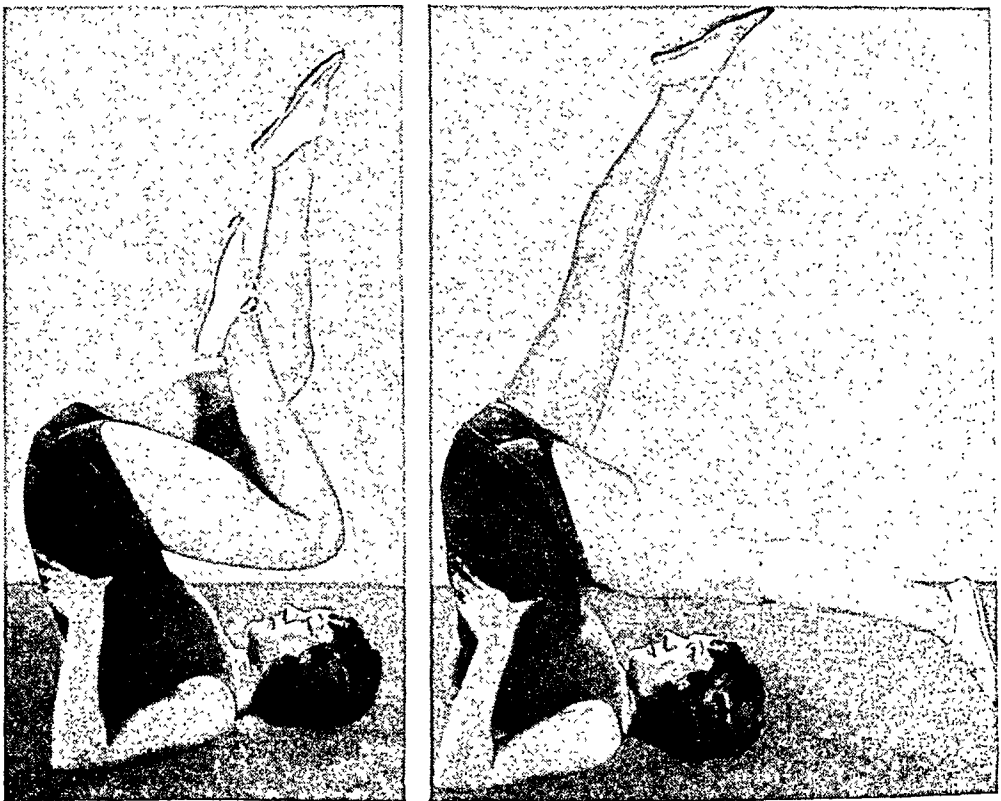
A simple, yet effective means of breaking down fatty tissue of the body is that of crawling about on the hands and knees as here illustrated. It is important to keep the back straight.

of the animal to enable them to use up this surplus. They frequently are troubled with severe sweating, shortness of breath, heart weakness and pains and with sleepiness.

Ordinary obesity is to be distinguished from the general body enlargement found in some abnormal conditions of the thyroid gland.

Obesity,
Treatment

Treatment. One who desires to lessen his weight should begin with a limited diet, such as Partial Fast No. 1, 2, 3 or 4. Day by day the energy and general strength of the body will increase while following this diet, which may seem strange but is readily explainable. When one is loaded down with adipose tissue that requires much energy to carry, it can be easily understood that when this tissue is being used up while dieting the energy of the body will not materially decrease—both because there is already prepared fuel in the fat and because further energy is not spent in digesting unneeded food.



The movement at the left is generally called "inverted bicycling." It involves resting the weight on the shoulders with the body supported with feet directly upward. The feet are then moved in circles as if engaged in pedaling a bicycle.

This is excellent exercise for reducing weight and exercising the abdomen.

Another excellent movement for the abdominal region is performed by beginning in the same position as in the first photograph and then bringing one foot, then the other, down to touch the floor as here shown.

Naturally, one will ask whether, after a fast or a fruit diet, the appetite does not become so keen that the weight increases until it is far more than it was previously. If the patient allows his appetite full sway, the reply must be in the affirmative; but it must be curbed or else an offsetting amount of exercises must be taken. It is far better, however, to check the appetite. Thus in indicating a treatment for obesity, the initial step recommended would be a complete fast for two to five or six days.

In case the patient have a prejudice against the complete fast, Partial Fast No. 1 or one of the other partial-fasting routines or Salad Diet No. 5 or 6 (without nuts) may be recommended. The unpleasantness occasionally associated with



Obesity,
Diet in



EXERCISES FOR OBESITY.

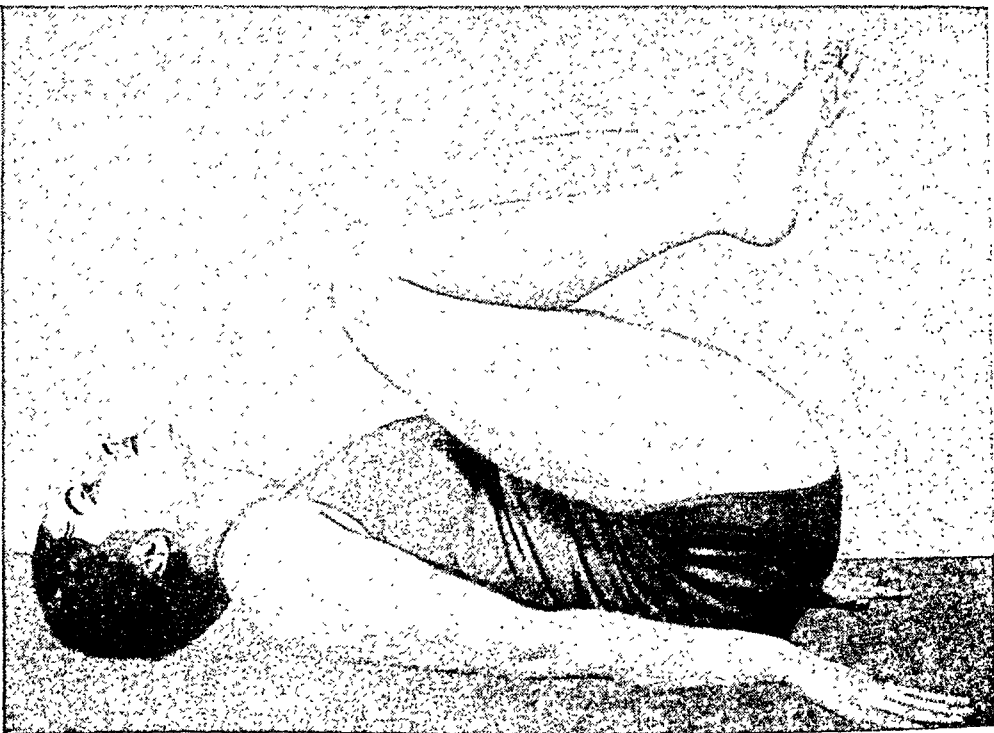
Begin by standing erect with arms outstretched overhead, feet wide apart. The hands are then brought as far back of the body as possible, as illustrated in the upper picture. Returning to original position, they are brought down to reach as far back between the legs as possible. The movement should be continuous, and may be repeated as many times as endurance permits.

fasting will not be noticed while taking these other diets. One sometimes will find it more difficult to follow the limited diet than the complete fast, for eating a small quantity of food naturally arouses the appetite. Where such diet is composed mostly of milk or acid fruits this craving as a rule is reduced. While endeavoring to decrease weight, drink only the amount of water strongly craved. Anything beyond this usually will add to the difficulties of reducing one's weight.

Obesity,
Exercise in

Exercises of all kinds within the strength of the patient are advised. Breathing exercises and walking are particularly valuable. If the patient will walk each day until thoroughly tired not only will the excess fat more rapidly disappear, but the vital energy will be greatly increased. Friction baths and massage may be used with benefit, and occasionally the mechanical rollers if not used harshly. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18; also Hip and Spinal Manipulations Nos. 27 to 32 are especially valuable, using the first series in the morning and the latter in the evening.

Contrary to general opinion, cold baths are of greater value in reducing than hot baths, though an occasional electric-light, Turkish or Russian bath that produces vigorous perspiration is



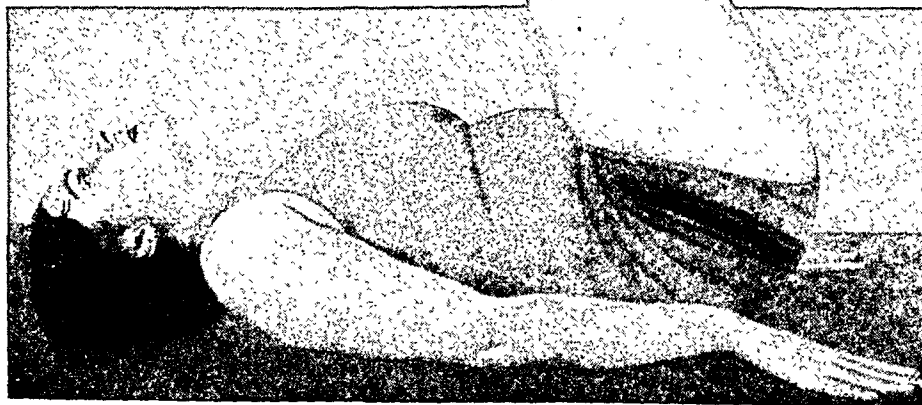
For the abdomen and for weight reduction in general, this exercise will be found useful. Beginning by lying at full length, the knees are brought as high up and as close to chest as possible. The legs are extended to original position, and the entire movement is repeated as many times as strength permits.

of benefit also, especially when followed by a cold bath—as such sweating procedures always should be, anyway. In some cases electrotherapy and organotherapy may be employed. Some cases of extreme obesity are definitely due to disturbances of endocrines, in which organotherapy should be employed regardless of whatever measures are used.

It would be of advantage to look over the vitality-building routines (Vol. VII, Sec. 6.) and follow whatever suggestions are adapted to one's strength. Remedying obesity is not by any means an easy task; it requires persistent and continuous efforts. In several cases where the weight has ranged from two hundred to five hundred pounds, the change that has been brought about through the application of the natural methods just described has been extremely gratifying. One patient whose weight was over four hundred pounds was able to reduce his weight to two hundred and twenty pounds. Another, who was five feet in height and was over two hundred pounds in weight, reduced to one hundred and fifty pounds. A patient who was so afflicted with fatty tissue that he was unable to sleep in a re-

Obesity,
Vitality-
Building in

The exercise illustrated is especially useful in obesity, tending to strengthen and shorten the muscles of the abdomen and to counteract sagging. The movement is begun by lying at full length on the back. The legs are then brought upward, as shown, until the feet are brought over the head to touch the floor, if possible. The legs are then returned to original position and the entire movement repeated as many times as endurance permits. The legs are here shown in upright position at the intermediate stage of exercise.



clining position and had to get what sleep he could while sitting up, after a few days' fast was able to sleep as comfortably as an ordinary individual. In nearly all cases the patients have been able subsequently so to control their habits of life that the growth of the fatty tissue has been restrained and they enjoyed, at least, ordinary health. Often the chemical ingredients of the blood stream need to be accurately balanced under scientific study and counsel.

The increase in vigor and health that come with reduction in excess weight make such a change in one's general feelings that it is worth all the efforts required to bring it about.

OBSTETRICS.—See *Childbirth*; also Vol. IV, Sec. 4.

Occupational
Neurosis

OCCUPATIONAL NEUROSIS.—(See also *Cramps* and *Spasm*.) This term is applied to a number of nervous disorders the exciting cause of which is an occupation that induces undue strain of certain nerves and muscles. Such vocations as writing, typewriting, telegraphy, piano and violin playing, etc., are likely to bring about the malady. The symptoms marking the approach of an occupational neurosis include cramp and pain in the affected muscles, whenever an attempt is made to go through the usual movements. When the seizure subsides an aching sensation remains and a serious form of neuritis often develops. This may result in atrophy and partial or complete paralysis.

Occupational
Neurosis,
Treatment

Treatment. In disorders of this kind two factors are to be considered: first, the constitutional weakness, susceptibility and nervous condition of the patient; second the strain upon the parts involved in the occupation. In treating the ailment the harmful occupation must be suspended for the time being or even permanently. It is true there are cases in which the occupation may be continued coincidently with the upbuilding of health, strength and nervous vigor; but in most instances it is difficult to bring about a radical improvement so long as the strain of the work remains.

Occupational
Neurosis,
Special Exercises in

In local treatment the circulation must be accelerated by the use of hot and cold packs—hot for three or four minutes and cold for one minute. Alternate the packs several times and terminate each treatment with one that is cold. This must be done twice each day, in the morning and in the evening. A heating compress should be placed upon or wrapped about the affected parts on retiring and allowed to remain until morning.

Following the hot and cold applications in the morning, treatment of the affected parts by means of the Special Exercise Treatments described in Volume VI will be of value. Indeed, aside from the constitutional treatment, massage and the Special Exercise Treatments will accomplish more than any other measure that can be adopted. If the affected parts first are thoroughly warmed

by means of sun, electric light or other source of heat better results will be obtained from the manipulation.

Although the direct cause of this disorder, as we have said, is the strain on certain nerves and muscles due to the patient's occupation, yet in practically all cases it is made possible through the defective condition of the entire body. Because of this, the ailment has many features in common with neuritis (which see). Hence all available measures should be taken to eliminate the poisons from the blood and the body tissues, as well as to build up the vitality. A fasting and general dietetic routine similar to that prescribed for neuritis may be adopted with confidence that it will produce satisfactory results.

In addition to the local application of Special Exercise Treatments, it will be of advantage to invigorate the entire nervous system by means of hot spinal packs once each day and by Special Manual Treatments Nos. 11 to 16 or Self-Applied Leg Exercise Movements Nos. 1 to 6.

Outdoor life is an important factor in assisting a recovery from a disease of this type. Walking in the open air is one of the best of all exercises. General exercise for the purpose of toning up the nerves of the body as a whole should be adopted. In this connection, attention is called to the chapters on Exercise in Volume III. Air-baths, sun-baths and dry friction baths also will be of great advantage. A health-building routine adapted to the strength and a general vitality routine appropriate to the condition of the patient should be faithfully followed day by day.

OOPHORITIS (*Ovaritis*).—See *Ovaries, Inflammation of*.

OPHTHALMIA.—A general term for inflammation of the conjunctivæ or of the deeper structures of the eye. See *Eye, Diseases of*. Ophthalmia

OPIUM POISONING.—See *Drug Habits* (Vol. VII) and *Poisons*; also *Poisoning*, under *First Aid in Accidents and Disease*, Volume VII, Section 5.

ORCHITIS.—An inflammatory condition of the testicles which may be either acute or chronic, the former often preceding the latter. Orchitis often is an accompaniment of diseases of an infectious nature in which there are marked disturbances of the lymph circulation—such as mumps. Or it may be due to tuberculous or gonorrheal infection. The symptoms are mostly local in character. Orchitis

Symptoms. The symptoms are similar to those of epididymitis, but they usually are more intense, the local pain being greater and the constitutional symptoms more marked. The testicle swells to two or three times normal size and its sensitiveness and tenderness are intense. The patient does not do any more walking than necessary but when he does he walks with his legs apart.

The scrotum is red and swollen, and there frequently is an effusion of fluid which can be felt upon closely examining the parts.

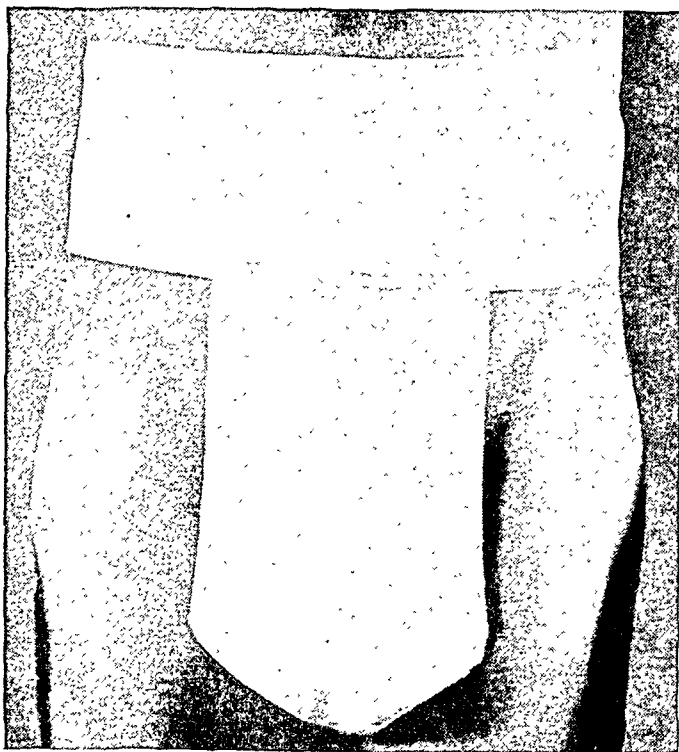
This disease may terminate in complete recovery, but also may tend to cause chronic enlargement of the testicle or in some cases suppuration of that gland. After the subsidence of the inflammation the testicle may still remain slightly swollen and sensitive. Until these chronic symptoms disappear there is danger of a recurrence of the acute condition. (See also *Epididymitis*).

Orchitis,
Treatment

Treatment. The patient should have bed rest in an acute attack and the scrotum should be elevated, but not by any means which interferes with circulation. Perhaps the most valuable form of treatment in this disease is to be found in sitz-baths, to be taken as hot as can be borne. These, together with free drinking of water and the daily use of a full enema, usually will bring immediate relief. Moist heat, as by hot, wet towels, applied to the affected part is commended. Heat produced by an incandescent bulb or infra-red generator is of great value, also. When available, however, diathermia offers not only quick relief from pain but rapid reduction

of the swelling. Natural sunlight or electrical substitute may be used sufficiently to procure a first degree "sunburn" to the scrotum, perineum and inner surfaces of the thighs, with good results. Galvanism perhaps is commendable in chronic cases. As the cause of this complaint is usually constitutional a full neutral bath (98 degrees to 100 degrees F.) for an hour or more is often desirable, though one should be careful to avoid overtreatment by any means.

It is hardly necessary to add that



This shows the T bandage as loosely fitted to cover compresses and for other purposes. One strip goes around the waist; the other starting from the rear passes between the thighs and is fastened in front to the first strip. It is used in the treatment of orchitis, epididymitis, inguinal abscesses of certain venereal conditions, pubic parasites and for other purposes, and to retain compresses and poultices.

a complete fast should be observed while the acute symptoms are manifested. Acid fruit or its juices, however, may be given if much desired by the patient. Care must be used to avoid overeating when recovery is indicated. Any one of the Limited Diets that appeal to the patient may then be used for at least two days, to advantage. Enemas should be used freely, preferably hot, each followed by a small cold enema. (For further suggestions as to constitutional treatment see *Epididymitis*.)

ORGANS, UNDEVELOPED.—See *Undeveloped Male Organs*.

OSTEITIS.—See *Bone, Diseases of*.

OSTEOMYELITIS.—See *Bone, Diseases of*.

OTITIS.—Inflammation of the ear. It is distinguished as otitis externa, otitis media and otitis interna, according to whether the external, middle, or internal ear, respectively, is affected. *Otitis media* is the most common. (See *Ear, Diseases of*.)

Otitis

OVARY, DISEASES OF.—The ovary is subject to a few other diseases besides inflammation.

Ovary, Diseases of

Hernia. Occasionally the ovary may descend into the inguinal canal or even into the labium majus. Pain is the chief symptom, being increased on pressure and worse at menstrual periods. The ovary may be replaced by manual manipulation, after which a special truss should be worn, in addition to employing all natural means to restore full tone of tissues through general upbuilding of the health, also employing the gravity exercises recommended for all prolapses (See *Uterus, Displacements of*).

Prolapse. As a result of prolonged congestion, inflammation, subinvolution, elongation and stretching of the ligaments, or violent strain, as by jars and lifting, there may be a downward displacement of the ovary without disturbing the tubes and the uterus. Usually there must be considerable loss of tone throughout the body, especially of the pelvic structures before such occurs. The *symptoms* are constant and severe pain, increased by movement and during menstruation, nausea and indigestion, headache and various nervous disturbances.

Ovary, Prolapse

Regarding *treatment*, restoration to normal may be brought about, in uncomplicated cases, by the gravity exercises and the knee-chest position (See *Uterus, Displacements of*) and by increasing the general health and tone. Cold sitz-baths or alternate hot and cold sitz-baths may be helpful, especially if taken immediately following or preceding a period on the gravity table, with or without exercise. Hot rectal or vaginal irrigations will help reduce pelvic congestion, which may be further aided, in some cases, by the fast or by a fruit-juice diet. Free bowel activity must be established by means of the enema, by a fruit diet, and through the use of laxative foods.

Ovary,
Tumors

Tumors. Tumors of the ovary are divided into two groups: cystic and solid. *Cysts* of several kinds may involve any part of the ovary, and may grow to practically unlimited size; in fact, they may be many pounds in weight. There are no strictly characteristic symptoms of ovarian cysts, they being mainly due to pressure. Occasionally a comparatively small tumor may cause pain to exist in the sacrum and also down the leg. Some obstruction of the bowel and disturbance of the bladder may be present. Circulation and respiration may be interfered with by large tumors. Stretching of the skin, varicosities and edema may be present, the latter two usually affecting the abdominal skin, the sexual apparatus and the legs. There may be reduced urine, containing albumin. Menstruation may be totally unaffected and usually is undisturbed, though it decreases in many cases.

Solid tumors of the ovary are not common. They include fibroma, myoma, carcinoma, carcinoma and papilloma. As these tumors progress in size there develop severe abdominal pain, occasional hemorrhage between menstrual periods, loss of appetite, severe constipation and progressive emaciation. The patient may present the appearance of pregnancy as the tumor increases in size. Pressure symptoms involving other organs develop and the sufferer may die from exhaustion and malnutrition, unless other complications, such as peritonitis, hasten the end.

The *treatment* necessary in most cases is surgical removal of the cysts, or of the entire ovary in case of solid tumor. If proper natural treatment is begun early in their development, the tumors may be checked and in an occasional case caused to disappear. Treatment to be employed in case operation is to be delayed is given in detail under *Ovaries, Inflammation of*.

Ovaries,
Inflamma-
tion of—
Ovaritis

OVARIES, INFLAMMATION OF (*Ovaritis; Oophoritis*).—Inflammation of the ovaries may be either acute or chronic. Most cases are secondary to affections of the vagina, uterus, or Fallopian tubes. The *acute form* may be the result of infection with the gonococcus or gonorrhea germ, or of septic infection following childbirth, or from any uterine or Fallopian tubular inflammation which may travel along to the ovary. (See *Fallopian Tubes, Inflammation of*.) It also may come from an exacerbation of an old or chronic inflammation of the ovary itself or from some disorder of menstruation.

The entire female generative organization is affected during menstruation, becoming so congested, in some cases, as to approach inflammation. In one who is in a weakened condition this becomes more easy, so that some condition or exposure, such as a slight cold or even wet feet, which ordinarily would have no effect upon the general health may produce an ovarian inflammation. The drinking of alcoholic beverages, sexual excesses and too strenuous

coition also may produce the condition. In any case there exists some degree of underlying toxemia.

Sexual excitement through the reading of erotic stories, mental suggestions from evil associates, lascivious dancing, an inactive life of ease or highly stimulating foods may create sexual desires which, when not appeased, may produce congestions that may terminate in ovarian inflammation. This condition often is the result, also, of suppression of the menstruation, which causes an intense congestion of the ovarian blood-vessels. It may come from ungratified coition, or from mechanical causes, such as displacements of the uterus and the use of pessaries.

Chronic inflammation of the ovaries may be the result of sexual excesses or of any of the above mentioned conditions, or it may be the outcome of a neglected or wrongly treated acute attack. Special attention should be given to chronic inflammation of the ovaries at or near the change of life, for, if present when menstruation ceases, extreme congestion may ensue, with certain disturbances erroneously considered by many people to belong to this period of life.

Ovaries,
Chronic
Inflamma-
tion of

Symptoms. There is pain over the ovary, with a feeling of heat, the pain being greatly increased by exertion or by pressing upon the abdomen over the tender spot. This pain is dull and dragging in character, sometimes continuous, but frequently intermittent. It often extends down the groin and the thigh. In the chronic form the pain usually is most severe just before menstruation and is more or less relieved when the flow begins. Standing up or straightening out the leg on the affected side frequently increases the pain. In the acute form, there may be nausea or vomiting, rapid pulse, and an increase of temperature. The ovaries become enlarged and hardened and in time so destroyed as to make motherhood an impossibility on account of the sterility thus produced (when both ovaries are so affected).

Ovaritis,
Symptoms

Treatment. When the ovaries are acutely inflamed it is desirable to rest in bed even though the case is not especially severe. When there is fever, rest is especially indicated. A plentiful supply of fresh air should be provided. Complete Fast No. 2 should be started as soon as the pain and general symptoms are noted. The water taken may be hot or cold as desired and the full hot enema should be taken daily, not only for its cleansing effect but because it is of pronounced benefit in relieving the pain. Hot and cold sitz-baths alternating four minutes hot, one minute or less cold, are powerful stimulants to the curative processes, though but little other treatment should be taken if these are used. The sitz-baths should be taken with three to five changes twice daily.

Ovaritis,
Treatment

A hot abdominal and hip pack may be applied daily until the

acute symptoms subside. It should be continued each time until perspiration is produced. If the fever is high, however, this should be changed to a cold pack. Vaginal douches seldom are advisable, but if pain is severe a hot douche may give some relief and if there is much discharge an occasional mild antiseptic douche may be taken for the sake of cleanliness. Hot vaginal irrigations usually are of greater value than douches.

Ovaritis,
Diet and
Baths in

When the acute symptoms have subsided the fast may be broken by the fast-breaking routine appropriate to its length, and followed by Milk Diet No. 1. A milk diet is especially indicated in those cases where there has been an infection. A few days after starting this diet the abdominal and hip pack may be discontinued and alternate hot and cold sitz-baths then be substituted to advantage.

In the majority of cases, sitz-baths may be continued for several weeks, in order to tone up the reproductive organs. Where it is impossible to secure hot sitz-baths, cold ones, or cold hip packs, may be tried. Local radiant light and heat, or fomentations or heat by other convenient means may be used with excellent results after acute symptoms have subsided, though often during acute inflammation compresses of ice-cold water give better results. Complete sexual rest must be observed until the normal condition has been restored.

If the inflammation of the ovaries is secondary to some other disease, appropriate treatment should be applied to the latter also. The two treatments will be found to work together nicely. Occasionally in those cases where there is much suppuration and the drainage is poor, especially if an abscess forms, an operation may be required in order to avoid the possibility of the development of peritonitis. Such a contingency seldom develops if the proper treatment is applied promptly.

Ovaritis,
Chronic,
Treatment

Treatment of *chronic* inflammation of the ovaries is similar to that given above for acute inflammation after decrease of the severe acute symptoms. The fast should be taken, though it need not be taken for a great length of time unless there is pronounced toxemia or overweight. It is better in many cases to use the repeated fast of seven to ten days, using the daily hot enema followed by a small cool enema and following each fast with a diet mainly of uncooked salads and fruits and milk or some form of sour milk, or the Limited Diets.

In addition to local heat and the sitz-baths, moderate pelvis massage may be used with benefit. Sexual rest is not imperative, though there should be abstinence when sexual indulgence aggravates any symptoms or in case coitus is not fully gratifying to the woman.

Special Manual Treatments Nos. 11 to 16 or Self-Applied Exercise Movements Nos. 1 to 6 may be taken to advantage as a means of stimulating the nerve centers and adding to the general vitality. Exercises which can be given without aggravating the affected part should be used daily and persistently. Every means of increasing the general vitality will assist in recovery. If fairly strong, the various back and waist exercises given in Volume VI (Section 3) may be adopted by the patient. In fact, if these exercises are not completely performed and the patient rests between her efforts, after becoming slightly fatigued, material benefit should be secured therefrom. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 also may be used, though great care must be taken to avoid overexertion or unduly irritating the diseased organs.

In literally hundreds of cases such methods have proved of great value in remedying these ailments. The operating table has been robbed of scores of victims by prescribing the simple methods here suggested. Only in an occasional case will an operation be necessary after these methods have been given a reasonable trial; and even in these cases treatment will so improve the quality of the blood of the patient that recovery from the operation will be quick and certain. Thus, even if considering an operation, the treatment herein outlined would prepare one for the shock to the body that often follows such an operation and recovery would be far more certain as a result.

In the *treatment of tumors* of the ovary (or of any other part of the body) it must be remembered that when one is fasting, the body, through the medium of the blood, searches, as it were, for waste material that can be utilized for maintaining the energy. As a tumorous growth is in part a conglomeration of this waste matter, it is one of the first parts of the body subject to this absorbing process.

Ovarian
Tumors,
Treatment

Complete Fast No. 2 should be used and adhered to for ten to thirty days if the general condition of the patient will permit. Where the fast covers a brief period the milk diet following is not advised, though where continued for twenty to thirty days it may be taken for a week or two after the fast is ended. Limited Diet No. 2 or Salad Diet No. 5 or 6 should follow. Where the tumor has not been absorbed by one fast, additional fasts should be taken. If a good deal of exercise, such as has been suggested for building general vitality and a limited diet, is followed, the absorption process will continue and in many instances a definite cure be obtained without the necessity of further fasting. All tendencies towards constipation must be overcome, using enemas and colonic irrigation if necessary, but especially relying on laxative foods, bran and mineral oil.

Hot and cold sitz-baths are of special value. They may be taken morning and evening and two or three changes should be made from the hot to the cold. Where it is impossible to secure conveniences for the alternate sitz-baths, then cold ones or cold hip packs may be used.

Ozena

OZENA.—A chronic disease of the nasal passages, due to atrophy of the parts. There is a purulent, offensive discharge, which sometimes dries up into large repulsive scabs. Ozena is a chronic affection which often arises as an after-effect of inflammatory nasal catarrh. Also, it often is a symptom of such blood diseases as scrofula and syphilis.

Ozena,
Treatment

Treatment. The important factor in the treatment of this disease is constitutional, in other words, the purification of the blood stream. At the same time, local measures will facilitate improvement in the affected parts. When it is the aftermath of catarrh, however, the treatment is simple and often will bring about a radical improvement in the condition of the blood and the general health.

By way of local treatment, the inhalation of steam is valuable, as it softens and removes the crusts or scabs. The application of olive oil also helps in this respect. A nasal douche of salt water is of advantage and in some cases it will be best to use water that is hot, but not hot enough to cause discomfort.

The general instructions for treatment of catarrh of nose and throat apply to the treatment of this complaint, except that more stringent measures usually are necessary. For instance, where ordinary catarrh may be overcome by a modified course of diet or a short fast in connection with other hygienic measures, in a case of ozena a longer fast usually is requisite. In stubborn cases, Complete Fast No. 2, continued as long as the patient's condition will permit, is advisable, using Fast-Breaking Routine No. 3 or 4, and thereafter adopting Milk Diet No. 1. (See *Dietary and Vitality-Building Routines*, Vol. VII, Sec. 6.)

Ozena,
Sweating
Treatment

It is useless to expect good results unless the channels of elimination are active. Plenty of water must be taken for kidney and bowel action, though the enema may be better for bowel activity for a while. It will be of advantage to take a steam-cabinet or electric-light bath once or twice each week or to adopt some measure equally effective, as an aid to elimination.

Dry friction baths, air-baths and sun-baths are powerful remedies for curing disorders of this nature. Special attention should be given to them in connection with the general vitality-building routine adopted. The friction bath may be used once or twice each day, but the air-bath should be taken as often and for periods as prolonged as possible. Carbon-arc or incandescent heating bulb

for supplying considerable heat directly to the face, or local irradiations to the affected tissues by local sun lamp or both, will be of decided benefit. Diathermia, galvanism and faradism also are valuable. One may secure some relief, though temporary, by the use of a spray of some oily solution, such as liquid paraffin or petroleum.

PACHYEMIA (*Morbid Thickness of the Blood*).—General constitutional treatment similar to that advised elsewhere in this volume for *Plethora*.

PACHY-MENINGITIS.—Inflammation of the dura mater (outer membrane of brain and spinal cord). See *Meningitis*, as general treatment given there will be required.

Pachy-
meningitis

PAIN.—Pain is a sensation of distress, of various kinds and degrees, resulting from nerve irritation, pressure or damage. It may be *acute* or *chronic*. *Acute* pain usually is sharp and stabbing in character, though it may be throbbing and steady. *Chronic* pain is more likely to be less keen, more in the nature of an *ache*.

Pain

Regardless of their nature, pains of all kinds are nature's method of warning us when we are or have been misusing our bodies or when we are being or have been injured. Acute pain in some degree or in some part of the body practically always is associated with an acute disease process; chronic pain with a chronic disease process. Acute processes usually are inflammatory in nature; chronic processes are inflammatory or congestive. In any case the pain is due to pressure upon or irritation of the nerves from the congestion of blood and lymph or from the presence of waste matter and poisons in the parts.

Pain, especially when acute, should never be neglected. The cause should be sought, found and removed, immediately, if possible. One usually may assume with safety that the pain is due to one of three conditions: (1) Injury, which usually would be self-evident; (2) inflammation of, or pronounced congestion in the part affected; (3) irritation of some portion of the nerves supplying the parts in which the pain arises. This irritation may be anywhere from the nerve cells in the brain or the spinal cord to the minute extremities of the nerves in the skin or other tissues or organs. If the painful area is red and swollen, or if pressure increases the pain, there will be no doubt about the presence of inflammation. The source of irritation is not so easily determined. But if one looks back over one's habits of living during the past several days or weeks, in the case of acute pain, or during the past few weeks or months, in the case of chronic pain, one usually will find the cause of the trouble.

Pain,
Causes

Susceptibility to pain may be modified by the manner of one's life as well as by one's occupation, and also by the sensitiveness of

one's nervous system, natural or acquired. The enduring of physical hardships for a long time naturally blunts the sense of pain. Strong excitement, such as is felt by soldiers in battle, religious fervor, or other conditions, may deaden the sense of pain. Certain races seem to be more susceptible to pain than others, notably the Jewish, the Italian and the Celtic races, all of whom seem much more susceptible than the Teutonic or the Slavonic races. A neurotic person will complain of pain from a seemingly trivial cause. Long-continued pain, however, increases the susceptibility of the individual and each return of pain in such a person will be less well borne. Fright will increase pain, as also will apprehension or expectancy of it.

Pain,
Degree

The intensity of pain can be estimated not only by the statements made by the sufferer regarding its degree, nature, location and extent but also by the signs of its presence which the sufferer unconsciously gives. The statements of the person himself may be more or less misleading, as some persons suffer more severely than others from what apparently must be approximately the same degree of cause for pain; others consciously or unconsciously exaggerate the amount of pain which they feel; on the other hand some more or less stoic sufferers try to minimize, intentionally or not, the amount of pain they have, as a matter of (sometimes unrecognized) pride in their ability to endure suffering.

Aside from the statements of the patient, however, the facial expression and other manifestations are of considerable aid in estimating the degree of suffering. In most cases in real pain, if severe, the breathing is more rapid, the pupils are dilated, the skin is moist, possibly cold and the pulse is tense. (Butler.)

Pain, Kinds
of, Mean-
ing

A *sharp* and *violent* pain usually is indicative of an acute process going on somewhere in the body. When persistent it is a sure sign of organic inflammation which demands prompt measures of relief. When this pain is particularly piercing and radiates from a well-defined area, the indication is that a nerve or nerve sheath is subject to irritation due to inflammatory development.

A *dull*, ill-defined and *aching* pain is a certain sign of a chronic process. Generally it is combined with some functional defect of the larger organs of the body, the digestive tract, liver, kidneys and lungs in particular.

An extremely *sensitive* condition which merges into pain when the part affected is touched or moved, always precedes the appearance of some obscure disorder, such as tumors of the spinal cord, disturbances of the digestion and diseases of the abdominal organs, or abscesses of an internal nature.

An *irritating* or *itching* pain, when not local in character and directly due to a skin disease, usually is related to some definite

disturbance of the digestive tract, the most common being the presence of intestinal parasites.

A *numb* or a *tingling* pain, when not due to a rheumatic condition, can always be attributed to some nervous disablement of a chronic nature, such as neurasthenia, locomotor ataxia, chronic and sub-acute neuritis, or sciatica, epilepsy, meningitis, etc.

A *burning* pain, occurring in the stomach, is a sure sign of digestive disorders—a hyperacid condition of this organ or possibly an ulcer.

An oppressive or *weighing-down sensation* often precedes a hemorrhage. It also may be an indication of the formation of a remote internal tumor, or a displaced organ.

The locality also influences the character of a pain. The pain in a joint or a bone usually is decidedly different from that in any of the soft parts. Each part has its own kind of pain. As a rule pain from confined pus or other fluids which cannot escape from an inflamed area, is of a severe throbbing character. Pain from confined gas is either *steady* or *paroxysmal* and may be in any degree from merely annoying to agonizing; if the gas is at the apex of a tooth the pain may be extreme and *throbbing*. When pain is localized and confined to a definite part of the body its cause usually can be ascertained easily; but when it is diffused over a large area and is accompanied by other symptoms the causative condition cannot be determined so readily.

Pain,
Locality

Pain of all kinds is simply an effort on the part of the body to readjust itself. Therefore, the tendency at all times is for it to cease after this adjustment has been established or when normal or comparatively normal conditions have been restored, in either case by time and simple changes in habits forced upon one by the pain and its causative condition, or by time and proper treatment methods. (For further assistance in determining the cause of pain, see also under the heading *Pain* under *Interpreting Disease Symptoms*, Vol. VII, Sec. 2.)

Treatment. If the cause cannot be quickly determined it always is advisable to take a fast, the duration of which will depend upon many factors. While fasting the body will have the greatest opportunity to remedy the abnormal condition, because it does not need to give energy for the digestion and assimilation of food. Cleansing the alimentary tract by drinking considerable water and the use of moderately large enemas will be of assistance, as the presence of pathologically fermenting and putrefying matter in this canal is the source of many pains.

Pain,
Treatment

The affected part should never be used more than necessary, and not at all in most cases of acute pain, because the presence of pain, especially acute pain with or without other symp-

toms, indicates the need for rest. By adopting only these simple measures one will be making a good start toward removing the cause, regardless of the nature of the pain. When the cause has been found the further treatment can be decided upon.

In the case of pain of all kinds, the treatment of the disease condition which underlies the pain must be carried out, if this disease condition can be determined. However, where one simply suffers pain and has no idea as to its cause, the application of hot cloths or packs to the affected part will bring relief in nearly all cases. But a severe pain in the hand or the foot or some other remote part of the body may be due to digestive or assimilative defects.

Pain, Heat
and Cold for

If one does not obtain relief by local treatment it is a good plan to apply hot packs to the abdominal region. Even if the abdominal organs are the seat of no disorder, the heat to the abdomen probably will so influence the general circulation and quiet general nerve irritability that pain anywhere in the body will be greatly relieved or entirely removed. But if fever is associated with the pain it is well to use a cold instead of a hot abdominal pack. Frequently, also, constipation is associated with pain. This may be remedied by the full enema, warm or hot, according to comfort obtained. The free drinking of hot water also is advisable, though cold water may be used if craved by the patient (never ice-cold water).

Some pains even in remote parts of the body are due to vertebral subluxations, so require spinal adjustments; but far more are due to contractures of the spinal muscles and ligaments, so require heat, massage and other relaxing spinal treatments. Occasionally local massage will be helpful if there is not too much inflammation. This may be determined by the sensitiveness of the parts. If massage feels soothing and beneficial to the patient it should be used, but otherwise not. Some find that the electric vibrator is helpful in case of an acute headache; and some other pains, especially of a chronic nature, may be relieved by this procedure. Massage or vibration or any other manipulation, however, should be religiously avoided in any case of pain resulting from an accumulation of pus, as in abscess formation, or where there is a swollen and red and angry-looking inflammation.

In some cases where the pain is due to or accompanied by inflammation local cold applications will be found to give greater relief than will heat. Sometimes alternate hot and cold packs or compresses will prove most effective. The relative comfort afforded the patient will determine this matter in any case, though it may be said that hot applications will answer best in most cases. In all cases where the pain is of nervous origin heat, and heat only, should be employed except for brief cold tonic final applications.

Any form of heat may be used. But that from sunlight or from an electric heating lamp, with light bulb or other heating unit, often gives most prompt and complete relief, because most deeply penetrating. Such heat is far superior to liniments. A blue-bulb heating lamp soothes pain readily; but heat by any electric-light bulb, in a proper reflector, will ease many pains. Dry "baking" also is beneficial in many cases. Diathermia is excellent for deep-seated pain; and some of the static electrical modalities are of value also. One should not forget that zone therapy is a simple, effective means of relieving many pains.

A word of warning should be said against the use of pain-killing drugs. A pain exists for a reason, so if masked by a drug the causative condition is likely to be neglected in the false feeling of security. Something more serious will likely result. Moreover, such drugs add to the symptoms, in no way decreasing the *cause* of the pain. In fact, they interfere with the body's efforts to remedy that cause. Unless the pain is unbearably severe, therefore, it is far better to suffer a little more while remedying the cause of the trouble than to obtain temporary relief at the expense of future trouble. The measures given above usually will control pain sufficiently to make it bearable and in the majority of cases will do much toward eliminating it entirely.

PALATE, CLEFT.—See *Harelip*.

PALSY.—See *Paralysis*.

PANARIS.—See *Felon*.

PANCREAS, DISEASES OF.—Deficient functioning of the pancreas usually produces diabetes (which see). However, one can have cancer or inflammation of the pancreas without producing diabetes, at least for some time. Chronic inflammation is treated as below described. Symptoms are pain, slight fever and digestive disturbances. Cancer of the pancreas is treated the same as any other cancer (see *Cancer*).

Pancreas,
Diseases of

Treatment. Diseases of this organ often are due to dietetic mistakes. The remedy lies in adopting means that will build the digestive strength and improve the quality of the blood. Any of the general routines advised for this purpose may be used with satisfactory results, though abdominal packs, given on retiring at night and allowed to remain until dry, or until morning, would be of especial worth.

Pancreas,
Diseases of,
Treatment

Hot spinal packs, with some or all of the Back and Shoulder Movements described in Vol. VI also may be recommended. Outside of this, the treatment would be along general lines for adding to the constitutional and digestive vigor.

A fast of a duration adapted to the strength of the patient is to be advised, such as is described in Complete Fast No. 2. If the

Pancreas,
Diseases of,
Fasting for

patient is low in vitality, then the fast should not be continued more than two to five days. A fast-breaking routine adapted to the length of the fast should be used and the milk diet taken in practically every instance with benefit. As a rule, however, the milk diet should be taken in bed in diseases of this organ, especially if the vitality of the patient is low. Skim milk usually is better than whole milk.

Various exercises will be of value in adding to the general vitality, providing the patient possesses the requisite degree of strength. Select a vitality-building routine adapted to the strength and follow it in detail.

Paralysis

PARALYSIS (*Palsy*).—Loss of voluntary muscular control due to an affection of the nerves or nerve centers which control the affected muscles. This nerve degeneration originates either in the brain or the spinal cord (unless due to severing or inflammation of the nerves themselves). Its deep-seated location renders it difficult to cure. Chronic constipation is always a preceding cause and an accompanying symptom (and cause also, usually) of all forms of paralysis.

Paralysis,
Ascending

Ascending Paralysis. Except for the paralysis due to apoplexy, this is the most common form of paralysis. Characteristic of it is the gradual progression of nerve degeneration. Its most general form is loss of movement and sometimes of sensation in the lower limbs. The symptoms which precede its development are pain and aching in the lumbar regions, inability to walk without fatigue, intense aching when an erect position is maintained and more or less impairment of vision. This condition may last for months and even for years before the ability to move the limbs is entirely lost. But walking becomes more and more difficult until the patient may become helpless. As a rule, after the lower limbs have lost all power of voluntary movement the hands and the arms also become affected, or paralysis first may appear in the latter members.

Paralysis,
Sudden
(Stroke)

Sudden Paralysis or a Paralytic Stroke (see *Apoplexy*). Unlike the creeping form, it is rarely preceded by any tangible warning, but may result from the effect of exposure, intense heat (such as sunstroke), or intense cold, or it may be an after-effect of a convulsive seizure. Sudden paralyzes also are the result, sometimes, of infantile paralysis or anterior poliomyelitis; or of cerebral hemorrhage from a ruptured artery in the brain; or of an injury to the brain. Any injury which tears or severs a motor nerve will produce partial or complete paralysis of those muscles served by that particular nerve. The organic parts chiefly affected are the nerves of the face, the arms and the hands, on one side of the body. Sometimes the whole side of the body becomes paralyzed (*Hemiplegia*).

General Paralysis (Paresis). See *Brain, Diseases of*.

Paralysis Agitans is not considered a true form of palsy, although it often is referred to as shaking palsy. It afflicts chiefly those of advanced age, especially those between fifty and sixty years old. It occurs in males about twice as often as in females. The exciting causes are said to be anxiety and worry and mental occupation without adequate relaxation and physical activity, or exposure to wet and cold. The onset is gradual, the first symptom being trembling of the hands and loss of control over the arms. A similar loss of nerve control gradually extends throughout the body, with the result that an erect position becomes difficult to maintain so a crouching, trembling attitude is adopted, the head being bent forward and the back curved and rigid. The arms are bent at the elbows and held away from the body, the hands being held in front of the abdomen with the fingers partly closed. A peculiarity of the finger trembling is a "pill-rolling" movement—a circular movement of the opposed tips of the thumb and index and second fingers.

Paralysis
Agitans

When walking it becomes increasingly difficult to progress in any direction excepting a straight line, so that when it is necessary to turn the body, some form of temporary support is needed. In starting to walk the sufferer begins slowly but has difficulty in stopping, once he has started. The walk is a hurried, shuffling gait. If pulled backward he will make several quick steps and have a tendency to fall.

Muscular control in time decreases so that rising from a chair becomes difficult or impossible without assistance; and the whole of the body, from the jaws to the feet, may be affected by the trembling. When seated there is a constant vertical motion of the knees unless the feet are planted firmly on the floor. This incessant trembling of various parts of the body becomes well-nigh intolerable, as it is present throughout the waking hours. Any intentional movement aggravates the tremor. However, the muscles are quiet during sleep.

There apparently is no specific cause of this disease, so it must be ascribed to nervous degeneration, attributable to the encroachment of old age and certain forms of abuse. Measures designed, however, to increase vitality and improve the condition of the blood would be of undoubted benefit in staying the course of the disease.

Many cases of *paralysis agitans* have been alleviated by natural treatment, but no case of complete cure has been recorded. Organotherapy is of benefit in some cases; so because of the difficulty of complete cure it is advisable to employ it.

Bulbar paralysis is a rather rare condition which affects the tongue, lips, throat and larynx, so that speech, voice and swallowing

Paralysis,
Bulbar

are interfered with. The mouth remains open, saliva dribbles, the lower lip hangs down, speech is unintelligible and swallowing is difficult. This is a slowly progressing disease which ends fatally.

Paralysis
Facial

Facial paralysis (Bell's palsy) is an acute paralysis of the seventh cranial or facial nerve. Its onset is sudden. There is inability to expectorate, whistle or swallow, also one-sided loss of facial motion, expressionless face, depression of the corners of the mouth, open eyelids and drawing of the face toward the unaffected side. Injury or disease of the middle ear, syphilis and exposure are given as causes. (See *Facial Paralysis*).

Paralysis,
Treatment

Treatment. The methods used in the treatment of paralysis, practically identical in all cases, are based on the need for an increase of vitality, stimulation of the nerve centers of the spine and an acceleration of the circulation of the affected parts, with a view to increase the tissue changes, or metabolism, which latter phase of the treatment is illustrated in detail in the section on Special Exercise Treatments in Vol VI. With the help of this section one may become acquainted with the movements desirable in each individual case.

Once or twice daily the affected part should be given a thorough manipulative treatment, moving it in every direction, exercising it while relaxed and also while the muscles are to a certain extent contracted or tensed. Where the power of the muscles has disappeared, deep massage, such as kneading, may be resorted to.

This is one of the outstanding diseases where electricity may be used to advantage, especially the sinusoidal modality. Where the muscles have lost all voluntary power the application of this modality will cause them automatically to tense or contract, thus often assisting in maintaining muscle tone and in reviving the dormant nerve force. In addition, the spinal column should receive stimulation. As all voluntary nerves radiate from the spine, the increase of nerve vigor that will come from this stimulation is of the utmost value in treating this disease.

Yet this complaint, in the main, must be treated as a constitutional ailment. So in all cases it is well to begin the treatment with Complete Fast No. 2, to be continued for two to ten days, according to the condition of the patient. Where the patient is lacking in vitality and below normal weight, there should be only two to four days of fasting. Under other circumstances the fast may extend to the longer period mentioned. The fast-breaking routine adapted to the length of the fast should be used thereafter.

The milk diet will be found of special value in these diseases. Where the ordinary milk diet cannot be followed, Milk Diet No. 11 or a Combination Milk Diet (preferably No. 2 or 3) may take its place; or if these are not possible, a Milk and Fruit Diet, such as

is described in No. 1 or 3 may be used. Enemas must be used in many cases to maintain activity of the bowels, and especially when there is more or less paralysis of the bowels themselves. The fasting process may have to be repeated several times. Often Fasting Routine No. 5 is of value.

The Special Manual Treatments and the Self-Applied Exercise Movements are of special value for paralytic patients. If the sufferer is fairly strong Special Manual Treatments Nos. 11 to 16 or Self-Applied Movements Nos. 1 to 6 may be used; if not, then the lighter treatments would be desirable. Walking each day until slightly fatigued also will prove beneficial. Indeed, there is no disease in which exercise is of more importance.

In the treatment of a *paralytic stroke*, hot spinal packs also are of special value. If care is taken to avoid overfeeding and the free drinking of water is encouraged, as a rule the patient will slowly but surely improve. In nearly all cases, provided the patient is normal or above normal in weight, it would be advisable to continue the fast until a recovery is assured. The premature resumption of a full diet following a stroke of paralysis doubtless is the cause of the crippled condition of many patients who might have been cured by a proper dietetic routine.

Paralytic
Stroke,
Treatment

In all cases heliotherapy, actinotherapy, infra-red or radiant heat should be employed, according to the general condition.

The possibility of securing a permanent cure is hard to determine. In many cases a great improvement has been brought about within a short time, though thereafter no additional changes for the better appeared. The affected nerves seemed to have been so degenerated or weakened that they could not be fully repaired or could not recover their full quota of vitality. Yet other patients have recovered entirely as a result of following these instructions. If there are any means whereby paralysis can be cured they are those advocated here. Where the disease is beyond cure, one cannot, of course, expect that any methods will prove effectual.

In addition to the physical treatment outlined, the patient should employ autosuggestion, according to directions in the section on *Mental and Psychic Healing* (Vol. VI, Sec. 7).

PARANOIA.—See *Insanity*.

PARAPHIMOSIS.—See *Phimosis*.

PARAPLEGIA.—Paralysis of the legs and to some extent of the trunk. See *Paralysis* for general treatment.

PARASITES.—See *Intestinal Worms*. In addition to these parasites there are other pests which make their home in or on the human skin. The most common of these are:

Parasites

Lice, which often infest the human head, especially that of children, due to a total lack of cleanliness. Their presence is

characterized by intense itching, especially during sleep, and the scratching thus induced often is the cause of an eczematous affection.

There also is the *crab-louse* (or "crabs") that effects a lodgment in the flesh of the unclean around the genitals, under the armpits and in other parts of the body where hair grows, except the head.

Parasites,
Itch-Mite

The *itch-mite* (the parasite that causes *scabies*, or "seven-year-itch") is another parasite that breeds in the human skin, especially between the soft parts of the fingers and the toes. The insect burrows under and deposits eggs beneath the surface. When through lack of proper treatment it is allowed to spread, ulcers and an inflammatory eczema appear. Intense itching of the part affected is the first sign of the presence of this pest. Scratching of the itching skin will produce abrasions and also cause eczema. (See *Itch*.)

Parasites,
Treatment

Treatment. Cleanliness is the foe of most body parasites. Prevention in this case takes the form of a liberal use of soap and water; a cure can be effected by like means, the exceptions to this rule being that of the crab-louse and the itch-mite. The crab-louse buries its claws in the flesh, hence applications of water are more or less useless. Blue or mercurial ointment, however, will cause the death of the pest in short order, after which it may be removed by washing.

It may be emphasized that except in rare instances, these parasites obtain lodgment only on persons of unclean habits and that he who religiously observes the use of the bath need never stand in fear of them. Yet there are cases in which even cleanly persons may be visited by the parasites, but even in such instances the use of the bath will prevent the pests from securing a permanent foothold.

PARESIS.—See *Brain, Softening of the*; also *Insanity*.

PARESTHESIA.—Abnormal sensation, such as crawling, numbness, and "pins-and-needles"—a symptom in nerve disorders. (For treatment see *Paralysis*, and *Occupational Neurosis*.)

PARONYCHIA.—See *Felon*.

Pellagra

PELLAGRA (*Maidism*).—This disease is common in the Mediterranean region, the Balkan States in Europe and in the southern and western United States. It is estimated that there are 30,000 sufferers in the United States alone. While no age is immune, it generally attacks those between the ages of 20 to 50 years. In the United States it seems to be slightly more common in females than in males (six to four) and negroes are more susceptible than whites. It is found mostly in the warmer climates and is most likely to develop in the spring months. Those affected seem to be of the poorer classes and those living in the larger cities.

Symptoms. The disease comes on slowly and progresses gradually. Many persons suffering from pellagra are apparently worse in the summer than at other seasons. As the disease develops there will be burning in the mouth, dizziness, indigestion, pains in stomach and back, salivation or excessive secretion of saliva, with sore mouth, redness and thickening of the skin which steadily progresses, diarrhea and later, melancholia, tremors, mania or insanity. If death occurs it generally is from extreme exhaustion or from heart weakness.

Pellagra,
Symptoms

Lombroso worked over the question of the origin of the disease, and came to the conclusion that it is due to the presence of moldy corn in the diet. More recent experiments seem to prove that it is due to vitamin deficiency, though there still are several theories, none universally accepted.

Treatment. So far as hygienic measures are applicable, they may be summed up in a few words. The skin should be treated as in other skin diseases, but it should be protected from the rays of the sun, which act harmfully upon it. An absolute fast should not be undertaken. Instead, Partial Fast No. 1 or Salad Diet No. 5 or No. 6 should be used, followed later by any diet of fresh fruits and vegetables, whole milk, cream and butter, eggs and whole grain cereals. Water-drinking, tepid enemas, etc., should also be insisted upon. Prolonged warm baths will be found especially helpful, but graduated tonic baths should be used, also. A general vitality-building routine of constitutional exercises, and vegetable and fruit diets should be followed.

PEMPHIGUS.—See *Water-blebs*.

PERICARDITIS.—Inflammation of the covering or membranous sac in which the heart is enveloped. Pericarditis usually is secondary to some other general disease, such as rheumatism, pneumonia, sepsis or blood-poisoning, and acute infectious fevers, or is a result of injury.

Pericarditis

The *symptoms* are difficult respiration, with shortness of breath, severe heart palpitation and, around the heart, shooting, piercing pains which radiate to left arm and shoulder. Fever is present, the degree of the temperature being proportionate to the severity of the attack. Restlessness and sleeplessness are common, the pulse is rapid and occasionally there is severe vomiting. There may be a dry, irritating cough. When the inflammation is severe an inflammatory fluid (exudate) may collect in the sac. Usually this is serous, but at times may become purulent. With a drop in temperature the pains subside and improvement sets in; but even when all danger has vanished and the patient is well on the road to recovery, heart oppression and palpitation are symptoms which will remain for some time.

Pericarditis,
Symptoms

Pericarditis,
Treatment

Treatment. Pericarditis requires a thorough blood-purifying treatment to eliminate the poisons with which the body is charged, thus doing away with the cause of the inflammation. As such poisons are due to a general toxemia, which in turn is the result of an overcrowded digestive system, it follows that the fast is essential in the treatment of this disease until its acute symptoms have disappeared. To take food under the circumstances means adding to the toxic materials already in the body. This not only delays recovery but imperils the life of the patient. The copious drinking of water is necessary in order to aid in the processes of elimination through all channels. The water may be either hot or cold, as the patient desires.

In order to accomplish a thorough cleansing of the alimentary canal, enemas are of great value. In fact, they are imperative if there is a tendency to constipation; but in any case they will be helpful. If the fever is high they may be moderately cold, say 85 degrees F., but no warmer than 98 degrees or 100 degrees. If the patient at any time suffers from chilliness, a hot enema of a temperature of about 110 degrees F. is sometimes advantageous.

Pericarditis,
Hydro-
therapy in

Cold chest packs should be used, their application being renewed every 10 or 20 minutes. If the fever is not marked, the packs will prove effective if they are applied hot and changed every half hour. Or alternate hot and cold applications will bring about relief. The packs should remain undisturbed while the patient is asleep. In case of acute and severe pain in the region of the heart, hot fomentations are advised. A cure should be accomplished by the use of hot and cold water and other natural treatments without the aid of drugs, which yield only temporary relief.

Two of the most important factors in the treatment of this disease are plentiful supplies of pure air and sunlight. It will be better if the patient can be kept out of doors both day and night; but if this is inconvenient, the windows of the room in which he lives and sleeps should be kept wide open. While he should be sheltered from a current of air if he feels uncomfortable or it chills him, it should not be forgotten that circulating air is never the source of danger, but the reverse. Indeed, in a case of high fever a cold air-bath, continued as long as it is gratifying to the patient, induces activity of the pores of the skin and reduces the disease. Rest is vital in establishing a cure.

During the acute symptoms no manipulation is advisable. But later, on alternate mornings, Special Manual Treatments Nos. 1 to 10 may be used with a hot spinal pack. As the patient grows stronger and the heart condition shows definite improvement, a more vigorous treatment may be adopted, such as Special Manual Treatments Nos. 11 to 16. In all cases be sure there is

complete recuperation after each treatment. To insure this, it sometimes will be necessary to avoid giving treatment too frequently. In any case three treatments a week will be adequate. The latter treatments just named are strenuous, so it occasionally is better to omit some of their phases for fear that the treatment as a whole may overtax the recuperative powers of the patient.

Pericarditis,
Exercise and
Diet in

The fast should be continued according to Complete Fast No. 3 until all acute symptoms have disappeared; whereupon the fast-breaking routine adapted to the length of the fast should be followed. After this it is well to adopt a limited diet chosen from among Limited Diets Nos. 2, 3, 4 and 5. But in all cases where the patient lacks vitality or is reduced in weight, a milk diet is appropriate, Milk Diet No. 1 being preferable to the others. As the patient gains in strength a general vitality-building routine should be adopted and faithfully followed.

In case of accumulation of fluid which cannot be absorbed, it sometimes becomes necessary to tap the pericardial sac and withdraw the fluid with a syringe to save the patient's life. This, of course, is a procedure for a physician or a surgeon.

PERIOSTITIS.—See *Bone, Diseases of*.

PERITONITIS.—Inflammation of the membranes which line the abdominal wall and cover the abdominal organs. As in the case of a like inflammatory condition of any other covering of an important organ, peritonitis is an exceedingly dangerous disease which often ends fatally, for the sac which envelops each vital organ is the last line of defence against complete functional disablement of the organ in question. Peritonitis may occur as a primary disease from cold or exposure, or it may arise from seemingly no distinctly evident cause, though this is rare. Generally it is due to an infection, or to spreading of inflammation from some of the organs usually in the abdomen or the pelvis. It may also follow a perforation in the appendix, uterus or Fallopian tube, stomach or intestine.

Peritonitis

Peritonitis may be either acute or chronic, the acute form preceding the chronic stage.

Acute Peritonitis commonly is brought about by the discharge entering the abdominal cavity from an abscess, as occurs in typhoid fever and severe forms of appendicitis. In fact, the latter disease more than any other is responsible for the development of this ailment. Ulceration in any part of the intestinal tract is a common cause. Inflammatory conditions of the female pelvic organs, especially suppurative salpingitis, likewise are exciting causes. The symptoms which arise are grave in the extreme.

Peritonitis,
Acute

Symptoms. Severe abdominal pain is markedly increased by pressure or by attempts to move. If the patient lies absolutely

Peritonitis,
Acute,
Symptoms

still the pain may be somewhat mitigated. Instead of being localized, the pain may be diffused or referred to some other region, as the navel. There is great tenderness of the abdomen, with rigidity of the rectus abdominis muscles, giving the abdomen a board-like feeling. The breathing is rapid and shallow, the abdominal muscles being used little in the process. The patient usually lies upon the back with the knees drawn up to lessen the pull upon the abdomen. Frequently the arms are kept raised above the head.

The temperature at the beginning may not be elevated, but it quickly mounts up, sometimes to as high as 104 degrees. The pulse is rapid, tense and wiry; later, in unfavorable cases, becoming thready. There is vomiting, painful but without much straining. Only small quantities, consisting of the stomach contents, are vomited at first; but later the vomitus may become bilious or slightly fecal in character. There is gaseous distension of the abdomen and complete constipation. The tongue at first is coated but moist; later it becomes dry and brown. The face assumes a characteristic anxious expression; the features are pallid and pinched and the eyes are sunken. In the most severe cases the temples and the cheeks seem collapsed and the face becomes livid. Pronounced cardiac weakness and shortness of breath, when they occur, intensify the symptoms and generally denote a fatal termination.

Peritonitis,
Chronic

Chronic Peritonitis, when it is not an after-effect of an acute attack, is often due to intestinal tuberculosis. The characteristic symptoms are pain and tenderness over the abdominal area, with more or less distension caused by the presence of a serous fluid. When this morbid secretion involves the whole abdominal membrane, an acute process may supervene, with a fatal ending.

Peritonitis,
Treatment

Treatment. In an *acute* case due to the internal breaking of an abscess, rupture of the appendix or perforation of the intestines by an ulcer, surgical treatment will be required in order to obtain free drainage. This may be necessary also in other cases where there is much pus formation, especially in those cases resulting from salpingitis. A complete fast must be observed until healing has been well established; but the amount of water taken and the use of enemas will depend upon the exact condition and the extent of the operation and should be left to the judgment of the attending surgeon. Usually the more water that can be taken the better. If desired it may be flavored with lemon juice because of the antiseptic properties of this.

In those cases not requiring an operation baths should be taken and Complete Fast No. 3 should be instituted at the first sign of trouble, drinking freely of hot water flavored with lemon juice

and taking full hot enemas once daily. If such enemas prove painful, however, it may be necessary to take several small ones instead of one large one. Whichever method is used, the intestines should be thoroughly cleansed. Complete rest must be observed and an abundance of fresh air must be provided.

If immersion baths are not used, a hot abdominal pack may be applied twice a day for an hour each time. When fever develops the pack should be changed to a cold one. If the fever becomes high a general cold wet-sheet pack should be given once a day, using the cold local abdominal pack for the second application, during the day. In case of high fever it also is well to lower the temperature of the enemas to about 80 degrees.

Peritonitis,
Hydro-
therapy in

Just previous to the application of the second abdominal pack the abdomen should be irradiated with ultra-violet light. Infra-red therapy is of much value in this condition, also electric-light heat. Ultra-violet lamps may be rented. For those who have no apparatus heat may be given by fomentations or hot compresses. The heat should be directed to the abdomen, the treatment to continue for an hour at a time, once daily or on alternate days, and always followed by a cold application for three to five minutes. Care must be observed not to overtreat the patient. If he seems unable to react to more than one pack a day this should be the limit.

When the acute symptoms have subsided the fast must be broken gradually. The diet should be limited to fruit juices for two days, employing the juice of orange, grape or apple. This diet should be followed by two days on the whole fruit. After this Milk Diet No. 3 should be adhered to until full recovery has been established. If the full milk diet cannot be used one may follow one of the Combination Milk and Fruit Diets or a Salad Diet. Enemas are continued as necessary until the bowels move naturally.

A cold abdominal pack may be given once daily until the patient is able to be up and about, when the alternate hot and cold sitz-bath may be substituted. It would be well to continue this for several weeks. After starting the milk diet, a vitality-building routine suited to the strength of the patient should be strictly adhered to, changing to a more strenuous one as the strength grows. The patient should not try to hasten his recovery, but should allow plenty of time for convalescence.

When peritonitis is secondary to some other disease, attention should be given to that disease, though local treatments outlined above may be necessary also.

In the treatment of *chronic* peritonitis it is necessary to adopt constitutional measures to obtain the highest possible degree of

Peritonitis,
Chronic,
Treatment

vitality and to accomplish such a radical purification of the blood stream as will enable the body to eradicate the disease. It is best to give the entire alimentary canal a complete rest. For this reason a fast is strongly recommended. The longer the fast the more effective, though its duration naturally will be determined by the strength and weight of the patient.

Peritonitis,
Diet in

If of normal weight, or above, Complete Fast No. 2, continued to a normal termination, may be recommended, with Fast-Breaking Routine No. 3 or 4 to follow. After that a limited diet for a couple of weeks may be of advantage, choosing from Limited Diets Nos. 2, 5, 6 or 7. In case of greatly reduced weight, a milk diet should follow the fast, using Milk Diet No. 1. In some cases where the patient is too weak to take a fast of sufficient length to accomplish the desired results, Alternate Fast No. 5 may be preferable. Sun-burning of the abdomen is a beneficial aid, continued to the production of a dark tanning of the skin.

Outdoor air is of great advantage in overcoming any disorder of this kind. When indoors great care should be used to provide ample ventilation. A cold sitz-bath should be taken each morning as a means of invigorating the entire region affected by the disease. If at any time there is unusual pain, a hot sitz-bath should be substituted, though in such a case it usually will be better to take a hot sitz-bath first, followed by a cold sitz-bath. On going to bed each evening a cold abdominal pack may be applied, with a heavy dry towel wrapped outside, this pack to remain until morning or until dry.

Special Manual Treatments Nos. 1 to 10 or 11 to 16 may be used, preferably 11 to 16, if the patient is strong enough, or Self-Applied Exercise Movements Nos. 1 to 6, in case he has no assistance in taking the treatment. All exercises that he can take comfortably are to be recommended. Especially should he make a practice of daily long walks. He should not exhaust himself in his exercise, but he should walk each day until slightly fatigued, and should gradually increase the distance. He should adopt a general vitality-building routine suited to his strength and condition and adhere to it faithfully. In chronic tuberculous peritonitis, treatment must be modified in accordance with the degree and extent of the tuberculous infection. (See *Tuberculosis*.)

PERTUSSIS.—See *Whooping-Cough*.

Perversity,
Sexual

PERVERTSITY, SEXUAL (*Degeneracy*).—This is abnormal and perverted sexual appetite and practice. By the term *sexual pervert* usually is meant one who, male or female, finds sexual attraction in another person of the same sex, or at least seems to find gratification in indulging in abnormal and unnatural sexual acts with another person of the same sex, though there are many perverts

whose attraction and sexual practices concern only the opposite sex. They are called in common language "degenerates." "Sexual aberration" also is a name given to this form of sexual perversity, which apparently has existed from the earliest times.

Sexual perversity frequently, in fact usually, is caused by early sexual excesses, experiences or shock. Certainly it is true that a defective moral organization is present in most cases. Yet it is a well-known fact that many persons of the greatest ability and refinement, of great brain power, literary ability and force of character in other directions, are perverts. In these cases it is claimed that the condition may be caused by excessive sexual indulgence in the beginning, bringing on satiety, so that the normal act brings no gratification and is no longer desirable, so abnormal and extraordinary means of gratification are resorted to.

Psychopathia sexualis is the term applied by medical men to a great variety of sexual and mental degeneracies and abnormalities. Of these, however, masturbation and sexual perversity are the most common. It is unnecessary to go into detail on this comprehensive and not at all pleasant subject. The outraging of children, the gratification following, in some cases, the whipping of nude women, the snipping and fondling of women's hair, etc., are examples of the abnormal acts which produce sexual excitement and gratification in some of these perverts. Many of these perverts become so through a life of excess and abuse of the sexual function, although the use of cocaine, morphine, opium and other drugs, through their demoralizing influences, is responsible, in many instances, for such degenerate conditions. Soldiers, sailors, and other bodies of men who have been long absent from women's society sometimes develop cases of perversion among their number. But the perversion usually is due to no means for normal gratification, disappearing when conditions change.

Treatment. Treatment of this condition consists in attempts to bring the individual back to a normal mental and physical condition. Exercise, outdoor life, cold baths and a general physical culture routine must be insisted upon. The patient should avoid all sexual thoughts, conversations, etc., and should keep his mind in a healthy, clean state. No lascivious books, pictures, etc., must be available. A persistent effort should be made not only to avoid the abnormal practices which it is the victim's desire to forget, but also to live a life of general sexual continence for a prolonged period. As the body becomes stronger and more vigorous under treatment and training, the sufferer will find himself gradually but surely returning to a generally normal condition. The general routine advised in the treatment of masturbation may be advantageously used in the treatment of these cases.

Psycho-
pathia
Sexualis

Perversity,
Sexual,
Treatment

Pes Equinus

PES EQUINUS.—A foot deformity in which muscular contraction prevents the heel from touching the ground. The result is that the patient walks on the toes only. This malady is the result of paralytic degeneration of the leg muscles and often is an accompaniment of clubfoot. It sometimes is an after-effect of a contagious disease, especially infantile paralysis.

Treatment. Operative methods in this complaint sometimes are not advised, inasmuch as they not only do not restore the normal condition of the foot, but in addition make it impossible to effect a cure by any means whatever. By way of local treatment nothing is so effective as the Leg and Foot Movements described in Volume VI, Section 3. Manipulation of foot and leg by these methods is essential. Attention is called to movements Nos. 2, 3, 4, 7, 8, 12A, 13, 19, particularly to 8, 12A and 13.

As means of accelerating the circulation and helping to restore energy to the parts affected, hot and cold applications—either leg bath or leg pack—will be of great value. It is well to have two basins or tubs that permit of the alternate immersion of the limb from the knee down. The hot immersion or the hot pack may continue for three to five minutes and the cold one for one minute, making several changes and using the cold last. Let this treatment precede the above-described Leg and Foot Movements. Both treatments may be given twice daily, morning and evening.

Pes Equinus,
Treatment

These treatments, however, are not sufficient, inasmuch as the disorder is primarily the result of constitutional conditions that cause paralysis and degeneration of the muscles concerned. In addition to the local treatment by means of Leg and Foot Movements, various movements for the spine and particularly the lumbar region or lower spine will be of great value. Sometime during the day and not too close to the time selected for other treatments, a hot spinal pack in conjunction with some or all of the Back and Shoulder Movements will invigorate the entire nervous system.

In some cases it is possible that this disorder may be the result of greater or lesser displacement of the spinal vertebræ in the lumbar region, thus bringing pressure to bear on the spinal nerves and interfering with the supply of nerve energy to the affected limb. Special Exercise Treatments for the spine often will draw the vertebræ back into alignment and permit of an unimpeded supply of nerve energy. However, if the disorder is not due to this cause, or if weaknesses of the functional organs, poor circulation, or other defects of a constitutional nature are responsible, then a building up of vitality and general health is the prime consideration. Bandaging of the foot so that the fore part is raised will be of benefit, but will need to be continued regularly for a long time. Spinal traction is effective in this condition.

When the affection occurs in childhood it is important that the patient be given every opportunity for active, healthful play out of doors. He should be encouraged to exercise the defective limb as far as control over the muscles will permit. Such exercise in connection with the local treatment described is highly beneficial. Modifications of diet usually will be necessary, including fasting, milk diet and similar measures. A general vitality-building routine should be adopted including air-baths, sun-baths, dry friction baths and as much walking as the condition of the patient will permit. Braces may be necessary for some time.

Pes Equinus,
Exercise
Treatments

Apart from this, the reader is referred to that treatment recommended elsewhere for paralysis. (See also *Clubfoot*, and *Talipes Calcaneus*.)

PHARYNGITIS.—An inflammation of the pharynx, frequently involving the soft palate, uvula, tonsils and larynx. It may be acute or chronic in its form. The symptoms usually are similar to those of laryngitis.

Pharyngitis

Acute Pharyngitis may be due to exposure to cold and wet, inhalation of irritant vapors, sedentary habits, super-dry living quarters, an excess of sugar and starch foods, or certain diseases, such as tuberculosis, lithemia and gout. As a rule it occurs simply because there is need for extra elimination, as in the case of catarrhal inflammation from any other mucous surface. The fundamental cause, therefore, is a general toxemia resulting from wrong habits of living.

Pharyngitis,
Acute

The disease begins with tickling in the throat, causing a slight dry cough and attempts at swallowing. This latter is more or less difficult and attended by pain which may shoot up to the ears. There is a copious discharge from the nostrils; the mouth, nose and throat are inflamed; ringing in the ears, the throat feels dry and irritated—in fact, all the symptoms of a severe cold coupled with a sore throat are present. The nose becomes obstructed. The continued mouth-breathing accentuates the dryness and inflammation of the throat.

Chronic Pharyngitis may be atrophic, hypertrophic, ulcerative, or suppurative and may follow acute attacks or be due to excessive overuse of the voice or to the constant inhalation of irritant vapors. In this form the inflammation and copious discharge are moderate, but there are considerable huskiness, throat irritation and discharge of viscid and purulent mucus. The voice is weak and soon tires, and an attempt to speak for a protracted period results in pain and soreness. Mouth-breathing is the result, during the waking as well as the sleeping hours. On awakening there is a considerable collection of mucus in throat and nostrils and the effort to dislodge this often results in nausea and vomiting.

Pharyngitis,
Chronic

Pharyngitis,
Treatment

The inflammatory dryness of the throat and nose is likely to extend to the Eustachian tube and middle ear, seriously impairing the hearing and producing chronic deafness. It is possible for chronic pharyngitis to develop and become a permanent condition before the general health deteriorates to any serious degree. Constitutional measures alone can be depended upon to eradicate all tendency to this form of nose and throat trouble.

Treatment. The main factors of treatment are resting the voice, measures for purifying the blood and for building up and increasing the vitality so the organs may be enabled to perform their work in the way Nature intended. Special attention must be given to the various channels of elimination.

As a preliminary, all irritating factors should be avoided and plenty of fresh air secured, the patient being out of doors as much as possible. Then the alimentary canal should be thoroughly cleansed, Complete Fast No. 3 of moderate duration being recommended as most satisfactory for this purpose. The copious drinking of water advised in this routine will not only help cleanse the stomach during the fast, but will assist in purifying the blood and aid in rapid elimination in other ways.

The throat may be gargled or sprayed with a solution of salt or sodium bicarbonate in water. In an acute case, if there is fever there should be rest, otherwise this will not be necessary.

When beginning the fast, drink several glasses of hot water in which has been dissolved half a level teaspoonful of salt. Also a full enema should be taken every day or two during the fast. Activity of the pores of the skin may be aroused by means of cold wet-sheet packs given once a day; but where the patient complains of chilliness or where the hands and feet are cold a hot-blanket pack is better. Steam or electric-light baths may be used instead.

It will be of advantage to apply hot packs to the throat; but if there is much fever, cold packs will be better. In the latter case it is well, also, to let the patient swallow small pellets of ice, alternated with sips of cold water. The water may be flavored with lemon or lime juice or honey to make it more acceptable and to tempt the patient to take large quantities of it. It is essential that the patient have plenty of fresh air. If he cannot be out of doors the windows of his room should be kept wide open day and night. Water-cooled mercury lamp pharynx treatments are excellent.

During the day a spinal pack combined with Special Manual Treatments Nos. 1 to 10 will be of advantage, provided the strength of the patient will allow of them.

Fasting should be continued until the acute symptoms have disappeared, after which, a little fruit or fruit juice may be permissible. Partial Fasting Routine No. 1 or 4 may be used for a

day or two after a strict fast, then the patient will be ready to take up exclusive Milk Diet No. 1. If he is of good weight and has good powers of assimilation, a gradual return to ordinary foods will be permissible. A general vitality-building routine should be adopted, special attention being paid to walks in the open, air-baths and sun-baths. Sun-baths or sun lamp will be of definite value, especially if the resulting exposure be followed with a decidedly cool or cold water application. Also, from once to three times a week a vigorous perspiration should be induced by any convenient means and followed by suitable cool or cold tonic bath.

PHIMOSIS.—This is a condition in which the prepuce or foreskin of the penis is so tight or constricted at the extremity that it cannot be drawn back to expose the glans penis. As a rule the condition is congenital, though it may be produced by injuries, such as the scars from burns, healed sores, etc. When congenital, the inner surface of the prepuce often is adherent to the tissue of the glans penis. Sometimes the opening in the prepuce is so small (being no larger than the head of a pin) that urine is passed with difficulty, the prepuce swelling and bellying out and producing discomfort and even pain.

Phimosis

Phimosis has a tendency to limit the growth and development of the penis and to cause irritation and inflammation of the parts. Occasionally it may lead to other disturbances, such as undue sexual excitement. Frequently it is the factor in causing unnatural sexual practices.

Treatment. The operation of circumcision is to be recommended in all cases where the gradual stretching of the foreskin, continued several days, cannot bring about retraction of the prepuce. All adhesions must be broken up. Even in some cases where the prepuce can be retracted the operation of circumcision may be recommended as a sanitary measure, though if cleanliness were taught and practiced as it should be the operation should not be necessary. (See *Circumcision*.)

Phimosis,
Treatment

In many mild cases of phimosis simple dilation of the prepuce may be all that is necessary, though it is important that the foreskin be stretched enough to allow of easy retraction and in order that the cleansing of its under surface, the glans and all of the concealed parts may be efficiently done. If this is not done some means of cleaning these must be used.

This can be accomplished by means of a small syringe, the mouth of which is placed within the orifice of the prepuce so that water may be forced between the glans and the foreskin, closing the orifice tightly with the fingers. An injection of warm soapy water may be used, followed by two or three injections of plain water or boric-acid solution. Such treatment will aid also in di-

lating the parts, without causing undue irritation, as it will expand the foreskin with an even pressure throughout. In all cases where the glans cannot be uncovered and washed, this method of cleaning should be used daily or oftener, until it is determined what means are to be adopted for the permanent relief of the condition.

This method of cleaning is of value in cases where adhesions occur between the glans and the foreskin, for the pressure of the water may have some effect in helping to break up the adhesions. Hence, this is good practice, even though an operation be contemplated, for the parts will be somewhat stretched and more or less elastic, the operation rendered more easy and the result more satisfactory.

In some cases adhesions of this character occur without any phimosis. In such the syringe treatment is to be recommended. The mere drawing back on the foreskin while using some bland oil may be good, but there is a more evenly distributed pressure from the water, so there is less chance of doing harm by tearing the tissues than when the method by pulling back is used.

Paraphi-
mosis

Paraphimosis sometimes is a serious condition. As a rule, it is the direct result of wrong treatment for phimosis. In it the foreskin may be pulled back over the glans when the opening is too small and contracting behind the glans, causes a condition of strangulation. That part of the prepuce which formed the orifice now forms a tight constriction behind the corona, shutting off the circulation in the glans which becomes congested, swollen and inflamed and the prepuce overhangs it, becoming edematous.

Unless the foreskin can be pulled over the glans at once the result in a short time will be ulceration and sloughing away of the parts. It usually can be reduced, however, if it has not been neglected for too long a period, by oiling the parts well with olive oil and pressing the glans steadily back, at the same time exerting a forward pushing upon the swollen prepuce. The pressure of the fingers often will cause some reduction in the swelling, both of the prepuce and of the glans. It sometimes is necessary to apply a narrow bandage around the glans in order to reduce its size sufficiently to allow of the prepuce being drawn forward over it. If reduction cannot be promptly obtained it will be necessary to call a physician or a surgeon who doubtless will perform a slight but highly important operation.

PHLEBITIS.—Inflammation of the veins. See *Veins, Inflammation of*.

Phlegmasia

PHLEGMASIA.—This term is sometimes used for inflammation (especially when angry in character), most generally to indicate phlegmasia alba dolens, an inflammation of the femoral vein following childbirth, due to thrombosis of the veins (milk-leg). (See

Milk-leg and also *Fever; Inflammation; Puerperal Fever*; especially the first two.)

PHTHISIS.—The word which means wasting, or atrophy, local or general. Specifically it is used to denote *tuberculosis*, which see.

Phthisis

PILES.—See *Hemorrhoids*.

PIMPLES.—See *Acne*.

PIMPLES ON GENITALS.—Any eruption, such as vesicles, blisters or pimples, which may appear upon the genitals should receive careful attention. While the eruption may be innocuous and of only slight importance, it may become troublesome if neglected, as the skin and mucous membranes of these parts are sensitive and easily become greatly inflamed. Again, unless carefully examined and diagnosed it is possible that a sore which is apparently a simple pimple (herpes) or a small ulcer may be the initial lesion of a syphilitic infection or the beginning of a chancroid. Hence the importance of an early recognition of the character of any sore or abrasion appearing upon these parts.

Pimples on
Genitals

PLAGUE, BUBONIC.—An acute infectious and often epidemic fever characterized by the formation of buboes or suppurating lymph-glands in various parts of the body. In a second form, known as the pneumonic, the inflammation is located chiefly in the lungs. The *Bacillus pestis* is present in this disease and presumably is carried mainly by rats; but the real causes are general toxemia produced by wrong habits of living, bad hygiene and reduced vitality because of famine or semi-starvation.

Plague,
Bubonic

It is well known that epidemics of the plague occur only when filth and famine abound, regardless of how many rats are running about. The bacillus which is blamed for the disease is supposed to be carried to man by fleas which suck the infected blood of rats. One of the worst epidemics of the plague, known as the Black Death, occurred in the fourteenth century. It is said to have destroyed one-fourth the population of Europe and two-thirds of the population in some districts visited by it; but the fact that the remainder of the inhabitants escaped shows that there are more important causes than the bacillus. Improvement in sanitation and hygiene and a generally higher standard of living have largely stamped out the plague.

Symptoms. Bubonic Type: The onset is sudden, with chills, headache, backache, high fever, restlessness, rapid pulse and respiration. As a rule these symptoms are fully developed within a few hours. Within one or two days the glands begin to enlarge, first in the groin, then in the armpit, then in the neck. These swollen glands may attain the size of an egg or even larger and become tender. As the disease progresses the tongue becomes dry and brown, and there are dropsy, heart weakness and delirium.

Plague,
Bubonic,
Symptoms

Death may occur within one to seven days. At the beginning of the disease the temperature is high, running from 103 degrees to 104 degrees; later it becomes variable. In favorable cases improvement begins after the occurrence of the buboes or swollen glands. During the second week suppuration or resolution or reduction of these glands takes place. If the patient lives after the fifth day, the chances for recovery become much brighter. Occasionally during convalescence, however, cases will develop sudden heart-failure and die.

Plague,
Bubonic,
Pneumonic
Type

Pneumonic Type: In this type also the onset is sudden. There are chills, pain, cough, prostration, and high temperature. The pulse and breathing are rapid, and there are blueness or cyanosis of the face and watery and bloody sputum. This type is very fatal, death ensuing usually in one to four days. It is said by medical authorities that there are about 8 to 10 per cent. of recoveries of the bubonic form and even less than that of the pneumonic.

Plague,
Bubonic,
Treatment

Treatment. Since the plague develops chiefly in persons highly toxemic and greatly reduced in vitality and since the progress of the disease is rapid, even the best of treatment after the onset of the disease may fail. Hence, prevention is more important than cure. If the disease does develop, however, radical elimination is necessary because prompt treatment may save life.

Complete Fast No. 3 should be instituted immediately, drinking plenty of hot water and taking full hot enemas daily. These measures will increase the elimination through the kidneys and the bowels. Elimination through the lungs should be increased by supplying the patient with plenty of fresh air. If possible, he should be kept out of doors, though, of course, he should remain in bed.

Plague,
Bubonic,
Hydro-
therapy in

Elimination through the skin should be stimulated by a neutral bath 98 degrees to 100 degrees F., for an hour or more daily, or by means of packs, drinking hot water freely in either case. If the packs are used for the first day a hot dry pack may be applied in order to induce free perspiration, this to be followed by the cold sponge bath. In the evening a cold abdominal pack may be applied and allowed to remain until morning or until dry. After the first day cold abdominal packs may be kept on almost constantly, changing them almost every half hour.

If the fever becomes high the abdominal packs should be omitted for an hour or so and then the general cold wet-sheet pack given. When buboes appear, hot compresses should be applied to assist in causing them to discharge externally. If they discharge internally the resulting blood-poisoning is likely to prove fatal.

In the pneumonic type of this disease, instead of placing the cold packs on the abdomen they should be placed about the chest. The abdomen may be included once or twice a day, however, con-

tinuing the pack each time for about an hour. Care must be observed not to overtreat the patient. If delirium or coma occurs it should be treated according to directions given under those headings.

When the disease takes a favorable turn and the acute symptoms subside, the fast may be broken by taking fruit juices one day and the whole fruit another day or two. After this Milk Diet No. 3 may be adhered to until there has been full recuperation. Enemas are to be used as necessary, but the other hydriatric treatments may be discontinued, except for a cold abdominal or chest pack once a day for a week.

After the patient has been on the milk or the solid food diet for a few days, a vitality-building routine according to his strength should be adopted. If unable to obtain a satisfactory supply of milk, the next best diet would be one of fruits and vegetables (thoroughly cleansed in previously boiled cool water) and nuts, with plenty of water between meals. This diet should be almost entirely raw after the first few days. Sanitation and hygiene should have special attention.

PLETHORA.—This is an excess or superabundance of blood, characterized by abnormal fullness of the blood-vessels. It usually gives one a florid complexion and the patient often is subject to congestion of blood in the head. *Serous plethora* is a condition characterized by excess of serum in the blood. Plethora

Treatment. As this condition is the reverse of anemia, and often is the result of persistent overeating, the patient should adopt a two-meal-a-day, or perhaps a one-meal-a-day, plan instead of eating three meals a day. A general vitality-building routine is necessary to promote normal activity of the organs. A condition of this kind is due to imperfect circulation, overeating of heavy and rich foods and defective elimination. Attention should be given to the activity of the bowels in all cases. Plethora,
Treatment

Immediate treatment in ordinary cases of plethora may consist of a very limited diet to be chosen from among Limited Diets Nos. 6, 7, 3 and 1, or a fast of several days, the latter plan preferred. In most cases no further trouble will be experienced if a light diet, either of cooked or uncooked foods, be adopted. Patients with plethora or such tendency usually have excellent assimilative vigor, so overeating should be guarded against carefully.

Exercise and outdoor life are important factors in the treatment of this condition. In many cases the more exercise the better, thereby consuming the superfluous material in the blood and promoting such activity of the organs and functions as will bring about a normal condition of the blood stream. Vigorous athletic pastimes if one is strong enough, or any activity that induces free perspiration, Plethora,
Exercise for

are to be recommended. If one takes enough exercise he may rest assured that he will experience reduced inconvenience from this condition. However, as plethora often is associated with high blood pressure and, perhaps, hardened arteries, great care must be taken in such cases *not* to exercise strenuously; walking and mild games and other activities will be the limit of exercise.

A general vitality-building routine, including air-baths, sun-baths and all other available health-building measures, should be adopted. There is no objection to a prolonged fast if the patient has the strength and the weight to endure it comfortably.

Pleurisy

PLEURISY.—An inflammation of the pleura, or membrane covering the lungs and lining of the walls of the chest. There are three varieties: The dry form, which is a simple inflammation; the moist form, attended by exudation of serum; and the purulent form, attended by the formation of pus. The last is the most serious. In all three forms the fundamental cause is a general toxemia induced by wrong habits of living. The exciting causes may be unusual exposure to cold and wet, injury, or the presence of some other inflammation, such as pneumonia, tuberculosis, pericarditis, acute rheumatism and typhoid fever.

Pleurisy,
Dry,
Symptoms

Symptoms. Dry Pleurisy: There sometimes is a chill at the onset of the disease; but the first constant symptom is a severe, sharp pain at some point in the chest, usually just under the shoulder-blade at the back, or the pain may be reflected to any portion of the trunk. With each inhalation there is a stabbing sensation, with marked difficulty in breathing, which becomes rapid, short and shallow. A troublesome cough intensifies the pain in the chest. There is moderate fever and the urine becomes dark and heavy. Some adhesions may be left between the inner surfaces of the pleura as a result of the inflammation.

Pleurisy
with
Effusion
(Wet)

In *Wet Pleurisy*, or *Pleurisy with Effusion*, the above-mentioned symptoms are present at the beginning, but instead of clearing up in a few days the disease goes on to the formation of fluid in the pleural cavity. This may cause bulging of the chest on the affected



Pleurisy and muscular pain in children respond to hot applications to lessen pain. As a substitute for the hot-water bag, glass bottles containing hot water and wrapped in towels may be used. The patient should be thoroughly covered after the application of heat by this and other means.

side. The fluid usually is serous in character, but in severe cases it may change to pus. The condition is then known as *empyema*. In the wet or moist form of pleurisy, the patient is likely to lie on the affected side so as to allow of the expansion of the lung on the sound side and consequently obtain more comfortable breathing.

The *purulent form*, or *empyema*, may follow a moist pleurisy or an acute pneumonia or tuberculosis, or may occur after a fracture of one or more ribs with a penetration of the pleural cavity by a fragment or end of a fractured rib, setting up a septic infection. The symptoms are similar to those of simple pleurisy but are more marked and more severe, the temperature is higher but irregular, there may be rigors or chills, pallor of the face, difficult breathing, expectoration of offensive material, a generally septic appearance and a wasting away of the tissues. Proper constitutional measures at the beginning of an attack should prevent the development of serious complications or consequences.

Pleurisy,
Purulent
Form
(Empyema)

Chronic Fibrinous Pleurisy sometimes follows the acute form, with non-absorption of the effusion. The physical signs then resemble those of acute moist pleurisy, but are less severe. In chronic dry pleurisy (plastic pleurisy) there is a fibrinous exudate, but no effusion of serum, resulting in some degree of adhesion between the opposing surfaces of the pleura and deforming the chest on the affected side. There will be constant discomfort and sometimes pronounced pain. If tuberculous in nature, there will be exacerbations at times, with more or less severe pains.

Treatment. The acute manifestations of the various forms of pleurisy are all treated about alike. At the first sign of trouble, Complete Fast No. 2 should be immediately instituted, drinking hot or cold water as desired, but using one full hot enema daily. A hot chest pack should be applied two or three times a day, allowing it to remain for an hour or more each time. If the fever becomes high the packs may be changed to cold ones, though if the reaction is not prompt and complete it would be better to use the hot.

Pleurisy,
Treatment

Heat always is helpful for relieving the sharp pain associated with pleurisy. This should be applied for one-half hour twice daily, the patient practicing deep breathing during this treatment. Rest is advisable, but an abundance of fresh air is extremely necessary. If the patient can be on a sleeping porch so much the better.

In cases of dry pleurisy further relief from the pain may be secured by strapping the chest with two-inch adhesive tape. Start at the bottom of the chest, two inches or so on the well side at the back and pass around the affected side to two or three inches over the well side in front, drawing tight and working upward with successive strips of tape, using four to seven or eight strips and overlapping about one third. When this strapping is applied the

breath should be fully exhaled. The adhesive should be changed every two or three days. It can easily be removed by sponging the skin beneath with alcohol or benzine, starting at one corner. Strapping should never be employed in moist or purulent pleurisy. Heat is not used when the taping is employed.

In severe cases of the purulent type an operation may be necessary in order to secure drainage. However, such a necessity seldom arises except in neglected cases. In some cases where the treatment suggested cannot be applied a neutral bath, 98 to 100 degrees F., may be used for an hour or more daily with benefit.

After the acute symptoms have subsided, the fast should be broken according to the patient's strength, and followed by Milk Diet No. 3. In cases of moist pleurisy it may be well to limit the amount of water taken to that demanded by thirst for a day or two before breaking the fast. As soon as the patient is up and around he should indulge in moderate exercise. A suitable vitality-building routine should be adopted and carefully adhered to. Air, sun- and dry-friction baths are of particular importance. If any particular disease is present along with the pleurisy, this should also receive attention.

Chronic pleurisy should be treated in the same manner as to diet and the application of heat, and every effort should be made to increase the vitality, reduce toxemia, and restore normal freedom of chest movements. It must not be forgotten that tuberculosis is often a local cause of pleurisy. Several short fasts, with the milk diet between, may be required for complete results.

Pneumonia

PNEUMONIA (*Pneumonitis*).—An acute eliminative crisis consisting of a severe inflammation of the lungs. Pneumonia generally is divided into two varieties—bronchopneumonia, in which the bronchial tubes are first affected; and lobar pneumonia, involving the lobes of the lungs and supposed to be due to a specific micro-organism called *Diplococcus pneumoniae*. Double pneumonia is marked by involvement of the lobes of both lungs simultaneously, and is far the most serious form of this malady. However, from the standpoint of natural methods it does not much matter which one is present, because both are due to the same fundamental causes.

Pneumonia may result from exposure or from a severe cold, from the administration of ether for a surgical operation, or from the inhalation of much dust or other irritating particles; but generally only when a person is already in a toxemic and weakened condition. It may also be a complication of other diseases, especially infectious fevers and heart and kidney diseases; but only when these conditions are neglected or improperly treated or when the person is run-down.

All cases of pneumonia, especially those which occur independently of other abnormalities, are fundamentally due to a general toxemia and lowered vitality which results only from wrong habits of living. The real causes being the same in all cases, the treatment will be the same, although if some other disease is present also, this should receive appropriate treatment.

Symptoms. Lobar Pneumonia (Croupous pneumonia): The onset is abrupt, with chills and rise of temperature. There is pain, often severe, in the affected side, the breathing becomes rapid and there is a short, dry cough. The eyes are bright, the face becomes flushed and assumes an anxious expression. There frequently is a catchy grunt with each exhalation and the wings of the nose dilate with each inhalation. There is expectoration of a thick, tenacious, bloody or rusty sputum. The skin is dry, the pulse rapid, full and bounding in character and the lips are dry and become covered with herpetic blisters. The disease reaches a crisis within seven to ten days, when the temperature rapidly falls and convalescence begins.

Bronchopneumonia (called also *Lobular Pneumonia, Catarrhal Pneumonia, Capillary Bronchitis* and *Vesicular Bronchiolitis*). The disease begins in the smallest bronchial tubes (bronchioles) and extends to the alveoli, or air-cells. It usually attacks many small areas in both lungs. The general symptoms and course are about the same as in lobar pneumonia, except that this disease usually does not terminate by crisis, but gradually, by what is termed *lysis*.

Pneumonia,
Lobular
(Broncho-
pneumonia)

Gangrene, emphysema and tuberculous invasion of the lungs are not uncommon after-effects of an attack of pneumonia. Attacks of this disease often recur again and again in the same individual, but only when the inciting causes are not removed.

Treatment. At the first signs of the disease, Fast No. 3 should be begun. Children can fast as well as adults, though in the case of babies and small children a little dilute, unsweetened orange juice may be permitted. The patient should be encouraged to drink plenty of hot water, which may be flavored with lemon juice. After the first day the water may be taken either hot or cold as preferred by the patient and in accordance with the body temperature. A full hot enema should be given daily, as it is important to remove waste accumulations from the bowels. If the large enema seems to be too much of a tax on the strength of the patient, however, the quantity and temperature of the water may be somewhat reduced after the first day or two.

Pneumonia,
Treatment

An abundance of fresh air is absolutely necessary. The patient should be placed on a sleeping porch if this is available; if not, then in the best ventilated room in the house. The more fresh air he

can get, the better, though the bed should be so placed or a screen used so as to prevent a cold, chilling draft from passing over the patient. The body is using the lungs as a special eliminative channel, so plenty of oxygen is a valuable assistance in not only detoxifying the body but in relieving the difficulty in breathing which the patient experiences. An air-bath is helpful in increasing elimination through the skin and in preventing the temperature from getting unusually high. This is used only in warm weather or when the body temperature is high, as otherwise the patient may become chilled. Frequent rest in bed must be observed.

Pneumonia,
Hydro-
therapy in

On the first day, after the patient has rested from the enema a hot-blanket pack should be given to induce free perspiration. On the following days, if the temperature has risen, the cold wet-sheet pack should be used instead; but if the temperature is slight the hot-blanket pack may be repeated. Prompt reaction to the cold pack is necessary, so if the patient does not soon become warm hot-water bottles must be placed about the body to assist in bringing about the reaction. In most cases the fever will be sufficiently high quickly to restore warmth. A vigorous perspiration should follow reaction, and may continue for an hour or two. Care is necessary, of course, in removing the patient from the pack, a "piece-meal" cold sponge being given. If the patient becomes so weak that he does not react well to the cool pack, it should be limited to the abdominal region, in which case it would be well to place a hot-water bottle at the feet at the same time.

At night before the patient goes to sleep a cold chest pack should be applied and allowed to remain until dry or until it becomes uncomfortable. If the reaction is poor or there is extreme pain in the chest, however, hot packs should be applied instead, maintaining heat with one or more hot-water bottles. The patient should be given this pack two or three hours before he desires to sleep, so it may be removed without awakening him. Sometimes warm or cool abdominal packs are best for sleep.

Always care must be observed not to overtreat the patient, so not more than two packs of any kind should be given in one day. If the patient is weak one will be sufficient, employing whichever one seems to have the most beneficial effect. Dry friction of the skin with the palms of the hands or with friction brushes can often be used to advantage. Neutral baths instead of packs are sometimes advisable.

When the fever and other acute symptoms have subsided the fast may be broken by the fast-breaking routine appropriate to its length, usually No. 2. This should be followed by Milk Diet No. 1 until there has been full recuperation. It would be well to continue the chest pack for about a week and the enemas as long as necessary;

but the other hydiatric treatment may be discontinued. An abundance of fresh air will still be necessary indefinitely and a vitality-building routine suited to the strength of the patient adopted after the milk diet has been followed for a few days. If the strict milk diet cannot be used, one may take a Combination Milk Diet, Milk and Fruit Diet, or the alternate diet in the suitable "A" Fast-Breaking Routine. Activity must be resumed gradually, so the patient should allow himself plenty of time for convalescence. Sun-baths or ultra-violet irradiations are advisable, and the diet should contain an abundance of mineral elements and vitamins.

When the above treatment is used there should be none of the complications which so often render an attack of pneumonia disastrous. In fact, if the treatment is begun promptly the symptoms often may be avoided to a considerable extent. If complications should develop, however, from neglect or other cause, treat according to the condition developing. Bedside sunburn treatment of the chest and bodily skin surface with the mercury-arc-lamp has been utilized with marked success as a rapid means of aiding vitality-building forces of nature.

PNEUMOTHORAX.—Distention of the pleural cavity with air or gas sometimes occurring in pulmonary tuberculosis through rupture of lung tissue into the pleura. Quiet, chest fomentations and heat to the extremities are required. It often is helpful to strap the chest, much as for pleurisy. This is a case for professional care.

Pneumo-
thorax

POCKMARKS.—Pits left by pustules of smallpox (which see).

POISONS.—In order that ready reference may be made to it when an emergency arises this subject is divided into two sections, viz.: *external* and *internal* poisons, and these again are subdivided into the classes or divisions to one of which the various toxic substances belong. (See also *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

Poisons

Poisoning Externally.—Those poisons that affect the body from the outside are comparatively few. They include poison-ivy, poison-oak and poison-sumach, stings of insects, snake bites and the bites of rabid animals. (See *Hydrophobia*; also *Stings and Insect Bites*, under *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

Poisoning,
External

Poison-ivy and the other poisonous plants named, common in America, owe their toxic powers to an odorless, transparent water-insoluble oil found on the leaves, twigs and bark. It is classed among the irritant poisons. Within a few hours after the person comes in contact with the plant he suffers from cutaneous itching, swelling and vesicular eruption. In extreme cases there may be vomiting, colicky pains, fever and delirium. A portion or the whole of the body may be affected by the eruption, depending upon the extent of exposure and the degree of susceptibility.

Poisoning,
External,
Treatment

Treatment. Nothing is better than Epsom salts compresses to the affected areas. Boric acid compresses, sodium bicarbonate, starch, and carron oil also are of value. A solution of acetate of lead applied to the itching skin, neutralizing the poison, is recommended by the U. S. Department of Agriculture as a reliable cure. The patient should fast while the attack lasts. The free use of the enema, the drinking of large quantities of water and wet-sheet packs are of value. High authorities also vouch for the claim that the irritating oil of poison-ivy may be removed within five minutes by thorough scrubbing with hot water and soap applied vigorously with a flesh brush. But this must be used within a short time after contact or exposure.

Poisoning,
Internal

Poisoning Internally. There are many poisons, but only those which one is likely to contact under ordinary conditions of life, or while engaged in certain occupations will be discussed here.

In cases of poisoning in which there is no knowledge as to the nature of the poison, one should proceed according to the instructions given under *Poisoning* and *Ptomaine Poisoning* in Volume VII, Section 5.

For the treatment of *chronic poisoning*, such as occurs in the habitual use of cocaine, morphine, laudanum and other poisonous drugs, the reader is referred to the discussion of *Drug Habits* (Vol. VII). For poisoning as a result of eating putrid meat or fish, improperly canned vegetables, ice cream which is contaminated or stale though frozen, or any other decomposing or impure foods, see *Ptomaine Poisoning* further on.

Of the internal poisons the irritant type perhaps is the most common. This includes cantharides or Spanish fly, used for blistering purposes in many households; decomposed meat or fish (see *Ptomaine Poisoning*); iodine, lead, mercury, phosphorus, caustic potash, caustic soda, etc.

Generally speaking, an irritant poison acts on the alimentary tract, setting up inflammation, inducing purging, abdominal pains, vomiting, etc. Others of these poisons, particularly those of the metallic class, produce even graver symptoms, such as necrosis or rotting of the bones and rapid decay of certain tissues.

Poisoning,
Internal,
Treatment

Treatment. With the first named type of irritant poisons, the treatment is practically the same in all cases. Energetic activity of the bowels is brought about by hot enemas; emetics are used, with hot water drinking in large drafts; this being followed or preceded by demulcent drinks (milk, cream, white of egg, etc.), the object of which is to protect the mucous membranes that have been attacked by the poison.

Lead Poisoning, or *plumbism*, is the most common of all ailments due to industrial occupations. This disease occurs in those

people whose work necessitates the handling of the metal or its compounds (e.g., paints). The lead enters the body gradually, through the pores of the skin, through inhalation of its dust, or through swallowing fine particles.

Poisons, Lead

The symptoms of this form of poisoning are constipation, colicky pains in the abdomen and vomiting, coupled with a peculiar pale and leaden hue of gums and palate and pallor of the skin. When neglected, lead poisoning produces severe kidney disorder, the eyesight is seriously affected, often ending in blindness, or arteriosclerosis, some nerves become paralyzed, and death follows with the attendant symptoms of blood-poisoning.

Treatment. If the sufferer has been following an occupation which calls for the handling of lead, he must discontinue it at once. Thereafter the cure depends upon the various blood-purifying processes described at length in these volumes. Complete Fast No. 2 is to be advised in all cases, however. If normal or above normal weight the fast may be continued for one to two weeks with benefit. Milk Diet No. 1 thereafter is recommended in practically all cases; or one of the cereal broth diets may be used. The patient should take all the milk he possibly can, up to a maximum of seven quarts daily, to assist in eliminating the poison from the blood and the tissues. Where Milk Diet No. 2 cannot be adhered to, use Milk Diet No. 11.

Poisons,
Lead, Treat-
ment

Every available means for stimulating the vital energies is recommended. Special Manual Treatments Nos. 11 to 16 are excellent in this connection. If the patient is strong, Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18; also Hip and Spinal Manipulations Nos. 27 to 32 may be used, the former series in the morning and the latter in the evening. A vitality-building routine adapted to the strength of the patient should be followed in detail. Exercises of all kinds according to the patient's strength are especially advisable. Long walks and the lighter forms of athletic recreations will prove of much benefit. Wet-sheet packs may be used to advantage. Steam baths twice a week, or daily warm baths, lasting from half an hour to an hour, also are of value while following the milk diet. However, when warm baths are used, wet-sheet packs must not be applied the same day. A patient is not capable of reacting from more than one or two vigorous treatments during one day, so warning is given here against an excess of treatment.

Mercurial Poisons. Not infrequently the "regular" method of treating syphilis results in poisoning. In this method the patient is given huge doses of the salts of mercury, either in liquid or solid form. (See *Syphilis*.)

Poisons,
Mercurial

Mercurial poisoning may also result from the inhalation of the

fumes of the metal by those whose occupation renders them liable to such (as in silvering mirrors). The symptoms in both cases are identical. They take the form of red and swollen gums which bleed at the slightest provocation; the teeth become loose, and in severe cases ulceration of the gums and inflammation of the jaw follow. The patient complains of a metallic taste. There is an excessive flow of saliva (salivation). The hands and limbs are subject to a peculiar tremor which cannot be controlled and which may involve the face and the tongue, also. The patient usually suffers with diarrhea, and the stools often are bloody.

Poisons,
Mercurial,
Treatment

Treatment. With mercurial poisoning, substantially the same general methods of treatment may be followed as advised in lead poisoning. In eliminating these poisons from the body the treatment must be such that the depurating organs are aroused to a high degree of activity.

Milk Diet No. 2 or No. 11 is as valuable in this instance as in a case of lead poisoning. Where the milk diet is impracticable, then some suitable diet to keep up the strength, weight and endurance is essential. The free drinking of water is necessary where a milk diet is not followed. (See Vol. VII, Sec. 6.)

Activity of the alimentary canal is absolutely necessary. Enemas may be used with benefit, though the full enema must be avoided except in cases of urgency. Where an enema seems necessary, use as small a quantity of water as possible to bring about the results desired, gradually decreasing the quantity each day until the bowels have resumed their normal action.

Exercises of all kinds, to accelerate the activity of the eliminating organs and add to the general vitality, are especially recommended. Various means of inducing profuse perspiration are also valuable, notably electric-light cabinet baths, wet-sheet packs, steam baths, and hot-water baths.

Poisons,
Opium

Opium Poisons. Chronic opium poisoning is the result of opiumism or the habitual and excessive use of this drug. The symptoms are loss of appetite, constipation, headache, sleeplessness, restlessness and depression alternating with unnatural irritation and excitement. The pupils are contracted. These are the physical signs. Mental impairment also shows itself in loss of will-power, inability to concentrate, neglect of all duties, a total disregard of truth—until ultimately the victim, having lost all power of reasoning and all mental control, becomes hopelessly insane. For detailed treatment see *Drug Habits*; also *Narcotic Poisons*, below.

Phosphorus
Poison

Phosphorus Poison affects those people whose trade requires yellow phosphorus in the manufacturing process; for instance, matches. Acute phosphorus poisoning is characterized by a jaundiced skin, vomiting, diarrhea, marked tenderness in the

region of the liver and symptoms of acute inflammation of the kidneys.

The chief *symptom* of chronic phosphorus poisoning is the necrosis or decay of the jawbone and of the teeth. As in other forms of poisoning, the face becomes pale and drawn, the skin of an unwholesome hue, there are languor and depression, and often disturbances of the digestive tract. Unless the necrosis is at once attended to by removing the cause, an operation will become necessary.

Treatment. The same suggestions given in the treatment of lead and mercurial poisonings may be followed to advantage. The cure depends upon the purification of the blood, the necessary stimulation of the vital organs and functions of the body.

The *Corrosive Poisons* of the more common kind include tartar emetic, ammonia, carbolic, hydrochloric, nitric, oxalic, salicylic and sulphuric acids, arsenic, usually in the form of Paris green, some salts of zinc and so forth.

Poisons,
Corrosive

Symptoms. These resemble the symptoms produced by the irritant poisons, but are more pronounced. There invariably is acute pain in the digestive tract, especially in the intestines; there also are vomiting, feeble pulse, clammy skin, violent purging, cramps, collapse and often death. Sometimes there are suppression of the urine, constriction of the throat and vertigo.

Treatment. After administering white of egg, the stomach may be emptied by the stomach pump or otherwise, using care because of damage to walls of stomach by corrosion. Lacking such appliances, whatever emetics are available should be given at once. These consist of great quantities of lukewarm salt water or mustard water but it would be best in some cases if these emetics contained some albuminous liquid, preferably milk, or milk with egg whites beaten up. Vomiting, if not spontaneous, may be induced by tickling the inside of the throat with the finger. After the stomach is thoroughly emptied the patient should drink and retain large quantities of albuminous liquids. White of egg is better than whole egg. This stirred up in milk is a satisfactory remedy in most cases.

Poisons,
Corrosive,
Treatment

Full enemas of hot salt water (115 degrees F.) will be valuable, not only to evacuate the colon but to stimulate the kidneys, followed by a hot sitz-bath or abdominal pack. The greatest possible activity of the skin is necessary, so a hot-blanket pack or a full hot bath will be of great value in serious cases. The purest supply of air will be necessary.

Where there is constriction of the throat, hot compresses renewed every two or three minutes should be applied to this part. The extremities should be made warm by hot-water bottles applied to feet and legs and given in conjunction with the hot-blanket pack.

When the immediate crisis has been passed, the patient may drink hot water freely instead of the milk, but he should have abundant pure air. He should not attempt to eat until all signs of the trouble have completely vanished, whereupon a milk diet probably will prove most satisfactory, at least for a time.

Poisons,
Hydro-
cyanic

The *Hydrocyanic Poisons* have but three representatives with which the average person is likely to come in contact, potassium and sodium cyanide and hydrocyanic acid, popularly called prussic acid. This poison is used in the process of silver plating, in certain arts, in farming and gardening. The acid in minute quantities is in the kernels of stone fruit, such as plums, peaches and cherries. The characteristic odor of almonds, which these kernels have, is due to the presence of the poison. Deaths of children who have greedily eaten wild cherry kernels have been reported.

Prussic acid is the most deadly of all known poisons, the inhalation of the pure fumes causing instant death.

Symptoms. Almost immediate loss of consciousness, spasms, rigidity and general paralysis, including paralysis of respiration and heart. The patient's breath smells strongly of the poison.

Poisons,
Hydro-
cyanic,
Treatment

Treatment. Owing to the deadly and violent nature of this poison, extreme measures are necessary. For this reason ammonia, though in diluted form, may be recommended. A few drops in a glass of water will be effective, though beyond this it will be best to proceed as in most other poisons, with the drinking of large quantities of water and the administration of milk and egg whites to be used as emetics. These should be given without loss of time; otherwise asphyxia may result. Should this occur artificial respiration must be resorted to, at the same time pulling the tongue forward and outside the mouth, to keep the air passages open.

The extremities must be kept warm, while hot and cold packs should be applied alternately to the spine. If possible, complete immersion in hot water from 105 degrees to 112 degrees F., followed by a cold douche or cold affusions of the spine, should be given. Beyond this immediate plan of treatment, proceed as in other cases of poisoning with full enemas, hot-blanket packs, the copious drinking of albuminous liquids, fasting and a free supply of fresh air.

Poisons,
Cyanide of
Potassium

Cyanide of Potassium has been much discussed as a poison because of its connection with many suicide and murder cases. It produces such changes in the blood that the red corpuscles are unable to give up the oxygen they carry. Death usually follows within a few minutes. The victim usually cries out in anguish, falls and dies quickly, though with a smaller dose there may be nausea, vomiting and difficult breathing, followed by lockjaw and convulsions and coma ending in death. If the patient can survive this state of coma or be aroused from it, he may recover.

Treatment should consist of emetics (Vol. VII. Sec. 5) to induce vomiting, followed by a full hot bath. Cold douches to the upper spine may be applied while sitting in the bath. If coma supervenes, hot-blanket packs are recommended, alternated with hot and cold packs to the spine. Beyond this, proceed as in other cases of poisoning.

The common *Intoxicating Poisons* include alcohol (see *Alcoholism*), camphor and harmful fungi (certain species of mushrooms popularly called "toadstools"). Death from these poisons is due to paralysis of the heart.

Poisons,
Intoxicating

Symptoms. Confusion of thought, vertigo, flushing of the face, disturbance of vision, delirium, sometimes but not always vomiting and purging, heart-failure.

Treatment should include immediate administrations of emetics (lukewarm salt water will suffice), repeating until the stomach is well emptied, after which the continued drinking of hot water frequently and in large quantities is imperative. Full hot enemas also should be given immediately—two or three in succession; the patient should retain the last one. Following this immediately, the hot-blanket pack will be effective in eliminating the toxins that already have entered the blood stream. Fresh air is necessary. The patient should avoid food until all symptoms have disappeared, but continue to drink abundant water. The hot-blanket pack may remain for two or three hours, followed by a quick cold douche. Several hours thereafter hot abdominal and spinal packs may be used.

Deliriant poisons include cocaine, also belladonna (deadly nightshade) and its allied poisons, atropin and homatropin. (See *Drug Habits*.) The last two poisons are commonly prescribed by oculists for certain diseases of the eye and hence are to be found in many households.

Poisons,
Deliriant

Symptoms. Cocaine produces faintness, nausea, prostration, slow and feeble respiration, small, rapid and intermittent pulse. The belladonna poisons induce heat and dryness of the mouth and throat; suppression of saliva, thirst, dilated pupils, flushed face, delirium.

Treatment. Treatment consists of the usual methods for cleansing the alimentary canal, including emetics (Vol. VII, Sec. 5), enemas and hot water drinking. Hot-blanket packs, with special care in getting the extremities warm, should be used in the beginning for two or three hours and, three or four hours thereafter, hot spinal packs and hot abdominal packs.

The *Narcotic Poisons* include opium, morphine, laudanum, narceine and codeine. No small portion of the habitual users of these drugs are made such by medical prescriptions that contain

Poisons,
Narcotic

the poisons in larger or smaller quantities. The craving thus created remains after the passing of the trouble for which the drug was prescribed in the first instance. (See *Drug Habits*, Vol. VII.)

Symptoms in acute narcotic poisoning: Increased heartbeat, headache, contracted pupils and mental excitement are usually followed by intense sleepiness from which the patient can be roused with difficulty or not at all, sensation of weight in the limbs, the jaw falls, respiration is slow, snoring, pulse weak and compressible. Pallor and perspiration are present also.

Poisons,
Narcotic,
Treatment

Treatment. In a case of acute poisoning due to any of the above named narcotic poisons the treatment should involve radical eliminative measures affecting alimentary canal, kidneys and skin. The patient should be kept awake by all means and forced to walk; if necessary he must be supported on both sides and kept moving. If nausea is not present it should be induced by drinking large quantities of warm salt water as an emetic to empty the stomach; after which the patient should drink quantities of hot water to be retained if nausea has disappeared. Enemas should be used at first and immediately thereafter a hot-blanket pack lasting for one to two hours will be of advantage. Simultaneously with this, cold packs to the head will be of great value, especially when there is much mental excitement. It is particularly important to insure warmth of the extremities. If the hot-blanket pack seems too strenuous and there is fever, a cold wet-sheet pack may be used later instead. Three or four hours after, either a cold or a hot abdominal pack may be given and, two or three hours following this, a hot spinal pack with Special Manual Treatments Nos. 1 to 10. Abundant pure air is essential.

The Anesthetic Poisons are principally chloroform and ether. *Symptoms.* Insensibility and relaxation. Sometimes the stage of insensibility is preceded by excitement and a sense of strangulation, especially where ether is concerned.

Anesthetic
Poisons,
Treatment

Treatment. Artificial respiration should be begun at once and care should be taken either to place the patient out of doors or in a draft so that abundant pure air may be available. The extremities should be warmed by rubbing, and also by the application of heat. Alternate hot and cold packs should be made to the spine, provided artificial respiration does not produce results, but also in connection with the latter. A powerful vital stimulant may be found in hot applications over the heart. After consciousness is regained, proceed as with other poisons.

The *Asphyxiant Poisons* that usually endanger life or health are coal-gas, carbon dioxide, the by-products of human lungs in poorly ventilated rooms, carbon monoxide produced by burning charcoal and in the exhaust from automobiles.

Symptoms. Headache, giddiness, loss of muscular power, dilated pupils, labored breathing and unconsciousness.

Treatment. In most cases artificial respiration is desirable to insure satisfactory breathing, in some cases absolutely necessary. If the patient cannot be placed in the open air, a draft of pure air in the room is essential.

The extremities should be made warm by rubbing and the application of heat, while alternate hot and cold packs should be applied to the spine. The occasional dashing of cold water over the region of the heart and the entire chest also will be valuable as a means of arousing the respirative function. (See also *Asphyxia*, in *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

The *Abortive Poisons* include ergot and tansy. Ergot is a fungous parasite or "smut" of rye. Formerly it sometimes was found in rye flour of poor quality, but of late years, owing to improved forms of grain cleaning machinery, cases of poisoning from this cause are of rare occurrence. Both the poisons named sometimes are used by women in attempts to induce criminal abortion.

Abortive
Poisons,
Treatment

Symptoms. Cramps in the extremities; dizziness, dilated pupils, vomiting, diarrhea, full and gradually failing pulse.

Treatment. Symptoms of these poisons indicate the necessity for radical cleansing and emptying of the alimentary canal. Repeated emetics with liberal water drinking, therefore, are necessary until the stomach is apparently empty, after which the sufferer should drink large quantities of hot water and continue this until all symptoms have disappeared. A full hot enema also is necessary and should be repeated if needed. A hot foot-bath with cold applications to the head and the upper spine will be effective in many cases, though in a serious case a cold wet-sheet pack or a hot-blanket pack should be applied. In any event, special pains should be taken to warm the extremities.

Two or three hours after the pack mentioned, alternate hot and cold spinal packs may be used. No food should be given until all symptoms have disappeared.

The *Paralyzant Poisons* are represented by the common hemlock (a plant of the parsley family, not the tree hemlock). Scarcely a summer passes without a record of children who have fallen victims to the plant. It was by a cup of a decoction of hemlock that the Greek philosopher Socrates came to his death.

Paralyzant
Poisons,
Treatment

Symptoms. Weakness of the lower limbs, loss of voluntary power, dilated pupils, loss of sight, inability to swallow, paralysis of heart and respiration.

Treatment. Artificial respiration will be necessary in the treatment of extreme cases. If it is possible to swallow, emetics of lukewarm water and milk and egg white should be given until the

stomach is empty. If the patient is unable to swallow, a stomach tube or stomach pump should be used. If none of these is available, full hot enemas should be given and the patient immediately after should be placed in a full hot bath, temperature 105 degrees raising to 110 degrees F., or in a hot-blanket pack of the same temperature. Artificial respiration may be carried on while the patient is in this pack. Even if he can breathe, immediate artificial respiration will help him greatly. The air must be fresh and freely circulating. Special pains should be taken to warm the extremities, using hot-water bottles applied to feet and legs for this purpose. The hot-blanket pack may be continued for one or two hours. A couple of hours afterward hot spinal packs or alternate hot and cold spinal packs will be of value, combined with Special Manual Treatments Nos. 1 to 10. As soon as the patient is able to swallow he should drink large quantities of hot water frequently until all symptoms have subsided. No food should be allowed.

Depressant
Poisons,
Treatment

Depressant Poisons include tobacco (nicotine) and foxglove or digitalis.

Symptoms. In acute poisoning there are nausea, vomiting, weak pulse, clammy skin, contracted, then dilated pupils. In the case of digitalis there are purging, lethargy, delirium and coma.

In chronic tobacco poisoning the patient shows exaggerated, irregular heart-action and tremor; partial or total blindness, and Bright's disease may develop; there usually is marked tremor. See also *Tobaccoism*.

Treatment. Full hot enemas and also emetics (Vol. VII, Sec. 5.) where the patient is conscious, preceded and followed by the drinking of great quantities of hot water. When unconscious, hot enemas should be given immediately, followed by a hot-blanket pack. This may remain on for two or three hours, paying special attention to keeping the extremities warm, using hot-water bottles on the outside of the pack. As soon as consciousness is regained the patient should drink water as suggested. Two or three hours later hot spinal packs combined with Special Manual Treatments Nos. 1 to 10 should be given. Two or three hours later a hot abdominal pack may be applied. Outdoor air or its equivalent is imperative.

The *Convulsant Poisons* include nux vomica and its derivative, strychnine.

Symptoms. Tetanic convulsions at brief intervals, eyeballs prominent, pupils dilated, respiration impeded, pulse feeble and rapid, mental distress.

Treatment. Immediate emetics of warm water, milk and egg white repeated until the stomach is apparently cleansed, after which continue to drink warm milk with white of egg in large

quantities, to be retained. After several hours, the free drinking of hot water may be substituted. Full hot enemas should be used, preferably containing some milk. After two or three enemas, a hot-blanket pack should be given, with a cold application to the head. This pack should remain for one to three hours. The feet, especially, should be warmed with hot-water bottles. After the pack, apply cold affusions to the spine. If respiration is feeble, artificial respiration should be adopted.

It may be well to mention briefly a few of the poisonous drugs not already spoken of, with simple antidotes.

Acetanilid and Antipyrin: Emetics; recumbent position; rest; stimulants.

Antidotes
to Poisons

Acids (mineral): Chalk; plaster off the wall, in emergencies; oily drinks.

Acid, carbolic: Emetics; stimulants; alcoholic solutions.

Aconite: Emetics; stimulants; external heat; keep flat on back.

Ammonia: Vinegar; lemon juice; demulcent and soothing drinks.

Antimony (Tartrate—tartar emetic): Strong tea; if vomiting has not taken place, first tickle throat or drink water as an emetic.

Colchicum: Emetics; soothing drinks; external heat.

Copper sulphate (blue vitriol): Soap.

Croton Oil: Emetics; wash out stomach; soothing drinks.

Fly Poison: Same as for *arsenic* (see *Corrosive Poisons*, above).

Gas (illuminating, cess-pool, etc.): Oxygen inhalations; stimulants.

Hyocyanus: Emetics; wash out stomach; stimulants.

Iodine: Emetics; soothing and oily drinks; starch or flour in water; external heat.

Nux Vomica: Same as *strychnine* (see *Convulsant Poisons*, above).

Potash and Soda Salts: Lemon juice; oils; vinegar; demulcents.

Rat Poison: Generally contains *arsenic* or *phosphorus* (see *Corrosive Poisons*).

Silver Nitrate: Common salt in water; demulcents.

Stramonium: Same as *belladonna* (see *Deliriant Poisons*).

Wood Alcohol: Emetics and afterwards stimulants.

POLIOMYELITIS.—Inflammation of the gray matter of the spinal cord. *Acute anterior poliomyelitis* is considered under the heading *Infantile Paralysis*.

Poliomyeli-
tis

POLLUTION.—Introduction of filthy or contaminating matter, such as sewage or excreta. Spoken of commonly in regard to drinking water thus made unwholesome.

Pollution

POLYPUS.—A swelling or tumorous growth, occurring in the nasal passages, larynx, rectum or uterus. (See *Nasal Defects and Diseases*, etc.)

Polypus

PORRIGO.—Any scurfy disease of the scalp, such as ring-worm, eczema, etc. (See *Hair, Diseases of*.)

Posthitis

POSTHITIS.—Inflammation of the prepuce or foreskin of the penis. Mechanical irritation is the most frequent cause, whether by masturbation, violent or forced coition, or otherwise. The main symptoms are an edematous swelling, redness and more or less discomfort and pain. Freedom from irritation is necessary in establishing a cure, together with local heat or heat and cold, elevation and support (as by a suitable athletic supporter), and mild antiseptic solutions. (See also *Phimosis*, for more extended treatment.)

POTT'S DISEASE (*Tuberculous Spondylitis; Vertebral Caries*). Tuberculosis of the Spine.—See *Spine, Diseases of*.

PREGNANCY, DERANGEMENTS OF.—See Vol. IV, Sec. 4.

Prematurity

PREMATURITY.—This is the name given to the premature discharge of semen during attempted coition. It is a condition which sometimes approaches impotence. In fact, it sometimes is called *irritable impotence*. The condition is the result of a weakened state of the nerves and certain muscles connected with the genital system in the male. This weakened state usually is due to sexual excesses or to masturbation, but it may result from frequent sexual excitement without satisfaction, and also merely from lack of normal sexual experience. This discharge may take place at the beginning of the act or it may occur even during the anticipation of the act, and before the act is attempted. In fact, in much weakened persons the mere fact of being in the company of a female may cause a premature emission. This condition, of course, is very humiliating to the sufferer, and is likely to produce mental depression and psychic impotence. If the man is married there likely will be unhappiness because of the lack of sexual gratification of the wife, though often marriage overcomes the condition by providing the necessary more or less frequent sexual expression. A person of a nervous temperament sometimes becomes a victim to prematurity for a time, but in these cases it usually is not lasting.

Prematurity, Treatment

Treatment. The treatment is about the same as for impotence; that is, it calls for the building up of the nervous system and increasing the general vitality as rapidly as possible. Cold sitz-baths are especially valuable, though if the vitality is low alternate hot and cold sitz-baths are better for awhile. Exercise also is of the greatest importance, and the general suggestions for virility building should be carefully studied and followed. (See *Dietary and Vitality-Building Routines*, Vol. VII, Sec. 6.)

When the condition is the result of sexual excesses, continence is most important; and if it can be observed for several months, even for as long as one year, it will be of distinct advantage, if the man is young. In middle life continence may need to be for only two or three months.

Prostatic massage sometimes has a good effect. In some cases best results are obtained by topical (local) application, as of a very weak solution of silver nitrate, to certain points deep within the urethra. Such treatment, of course, must be given by a specialist or a capable physician. This treatment reduces the hypersensitiveness of the parts concerned and thus delays ejaculation.

Since this condition often results from irritability of the sexual center of the spinal cord (the lumbar region), massage, hot and cold applications, infra-red irradiation and spinal manipulative treatments to this region of the spine usually have beneficial effects. Because of the hyper-irritability of the seminal vesicles also present in most of these cases, hot rectal irrigations, continued for ten or fifteen minutes and followed by a cold irrigation lasting for a few seconds, will be of further benefit.

PRIAPISM.—This disorder is marked by a state of persistent erection of the male generative organ. There often is an accompanying sexual desire, though this frequently is absent. The condition usually is due to some form of local irritation, as rectal worms, tight prepuce, bladder or prostatic stones, stricture, cystitis, retention of urine, gonorrhea, the effect of cantharides, smegma or other secretion, or it may be due to perineal injuries, alcoholic or sexual excesses or leukemia, or to some peculiar and abnormal state of the nervous system. (See *Satyriasis*.)

Priapism

The *treatment* consists in the discovery, if possible, and the removal of the cause of the condition and also a course of constitutional treatment. All sexual excitement and erotic literature or conversations or even thoughts are to be carefully avoided. If the trouble seems to be of nervous origin, constitutional treatment will be especially necessary. Cold applications to the upper spine, also to the lower spine, are recommended as being effective in overcoming the excited condition of the parts. Local cold applications and cold sitz-baths also are of great value, but they must be of sufficient duration to produce a sedative effect. Cold applications lasting only a short time are stimulating and not soothing. Avoid all tight-fitting or too warm clothing.

Priapism,
Treatment

Chordee is a condition in which the erection of the penis is attended with considerable pain. This condition is discussed under *Gonorrhea*.

PRICKLY HEAT (*Miliaria rubra*).—An inflammatory condition of the skin and the sweat-glands common in hot weather. It is supposed to be due to excessive sweating, but in reality it is a result of internal and external dirt. Internal dirt, or toxemia, causes the perspiration to be highly acid and irritating. The pores become clogged with a mixture of this perspiration, oil and dust. Excessive clothing is an exciting cause, because it retains

Prickly Heat

the waste properties on the skin and overheats the body. If the sweating alone were the cause of the inflammation nearly everyone would have it during the hot weather. Those who observe right habits of living and give attention to hygiene seldom suffer from prickly heat.

Symptoms. The skin becomes covered with fine red, punctate spots which often form minute blisters. There are tingling, pricking, tenderness and soreness. The principal sites of the eruption are the throat, the waist, and the feet. With proper treatment the eruption rapidly disappears.

Prickly Heat,
Treatment

Treatment. The causes of prickly heat indicate the treatment that should be used. In many cases more frequent bathing will be sufficient to bring about results, especially if air-, dry friction, sun- and cold-water baths are employed, as well as occasional hot-water and soap baths. Clothing should be changed frequently and not more than is necessary should be worn.

In order to cleanse the body it would be best to adopt a diet of nothing but oranges for several days, drinking freely of water and using an enema daily. Eating should be resumed gradually, employing a summer diet, which includes plenty of fresh fruit and green vegetables. A suitable vitality-building routine should be adhered to. If there is much itching the application of water containing baking soda will give relief. Severe cases may require steam baths and cold wet-sheet packs. Bran baths are soothing in this condition. (See *Emollient Baths* under *Hydrotherapy*, Vol. VI, Sec. 2.) The same treatment applies to the case of children, though those under one year should use the milk diet after the orange diet.

Prolapsus

PROLAPSUS (*Procidencia; Ptosis*).—The falling down of an organ or other part. See *Anus, Prolapsus of; Prolapsus*, under *Rectum, Diseases of; Prolapsus Uteri*, and *Complete Prolapse*, under *Uterus, Displacements of; Vaginal Prolapsus*; also *Visceroptosis*.

Prostate
Gland, En-
largement
or Hyper-
trophy

PROSTATE GLAND, DISEASES OF.—*Enlargement or Hypertrophy of the Prostate Gland* is a fairly common disorder occurring in men of middle or advanced age. It may be the result of chronic inflammation of the gland in earlier life resulting from sexual excesses, or of gonorrhea; of chronic irritation produced by constipation and toxemia or of other debilitating influences which tend to produce chronic congestion of the gland, withdrawal and failure to complete the sexual act is a frequent cause. This hypertrophy comes so insidiously that it may have attained considerable proportions before it is noticed. The enlargement of the prostate gland diminishes the caliber of the urethra where it passes through this gland.

The first symptom usually noticed is the greater frequency of urination, with more or less interference with the passage of a free

stream of water, some pain attending the act, and the necessity of arising at night to void urine. The interference with the passage of urine may be serious, amounting sometimes to complete stoppage of the flow, and requiring emergency treatment (catheterization). It often is complicated with inflammation of the bladder, in which case there are mucus, pus and occasionally blood in the urine. In many cases the condition, if not relieved, causes an extension of the bladder inflammation through the ureters into the kidneys, a serious complication.

This enlargement may affect only one lobe of the gland, or it may involve all three lobes. Rectal examination usually will disclose the amount of enlargement present, though sometimes the swelling is mainly on the bladder side and cannot be so detected. The condition, if untreated, tends gradually to progress, the stream of urine becoming smaller and smaller, the effort to urinate becoming more and more intense, night urination progressing in frequency, the nervous system being severely affected, in some cases, the pus in the bladder gradually causing, through extension upward, a general infection of the kidneys and finally of the entire body, by which time the patient is ready to succumb to a general blood-poisoning.

Prostatic
Enlargement,
Symptoms

Treatment. See *Prostate Gland, Inflammation of*, below.

PROSTATE GLAND, INFLAMMATION OF (*Prostatitis*).—The prostate gland, one of the male sexual glands, is situated at the base of the bladder. The ureters (the tubes carrying the urine from the kidneys to the bladder) and the urethra pass through it. Inflammation of the prostate, with its accompanying swelling, sometimes seriously interferes with the passage of urine from the ureters to the bladder, and also with the passage of urine from the bladder. Prostatitis, which may be either acute or chronic, is a painful and distressing complaint, especially in the acute form. Properly treated, it usually can be cured with no unpleasant effects.

Prostate
Gland, In-
flamma-
tion

Acute Prostatitis is due, as a rule, to gonorrheal infection, though it may arise from other causes as well, such as an injury (venereal or otherwise) in which there is a subsequent infection, or from unusual exposure to cold and wet, or as a result of tuberculosis or an infectious disease.

Prostatitis,
Acute

The *symptoms* in the *acute* form are frequent desire to urinate, with a painful, scalding sensation on passing urine and a feeling of pressure in the region of the bladder. The gland becomes swollen and tender, evacuation of the bowels may be painful and there frequently is a dull pain in the back. If the swelling is marked there may be complete retention of urine. Sometimes an abscess forms, producing a serious condition. There usually are great nervous depression and despondency, fever and general consti-

tutional disturbance. Rectal exploration will disclose the swollen and tender condition of the gland. Unless properly treated, this disease may leave the gland in an abnormal condition, with the possibility of chronic enlargement at a later period.

Prostatitis,
Chronic

Chronic prostatitis may occur as an after-effect of the acute condition, or it may arise slowly from a long-continued irritation of the gland from frequent sexual excitement, retention of semen in incomplete intercourse, irritation, injections used in the treatment of gonorrhea, stricture of the urethra, stone in the bladder, hemorrhoids, etc. The symptoms are about the same as those of the acute disease, though considerably milder in character. Sometimes there is practically no enlargement of the gland and there may be little discomfort. There often is a dull ache in the back and the loins and a little pain after urinating.

The urine may be cloudy from the presence of mucus from the prostatic portion of the urethra. There generally is a discharge of a variable amount of viscid fluid, particularly noticeable after defecation. It also occasionally appears after urination. This chronic discharge is called *prostatorrhea*. It frequently causes great depression and nervousness, the patient becoming self-centered and often melancholic, with a tendency to magnify his troubles. In certain individuals neurasthenia is developed as a result.

Prostatitis,
Acute,
Treatment

Treatment. If the *acute prostatitis* is due to gonorrhea the treatment should be the same as for that disease. In these cases it is especially necessary to avoid antiseptic injections. (See *Gonorrhea*.) If the prostatitis is due to some other disease or to an injury, appropriate treatment should be taken for the primary condition, in addition to the measures suggested below.

When acute prostatitis occurs independently, the symptoms plainly indicate that the treatment should be constitutional as well as local. The inflammation may be localized, but the causes are more general. If the condition is severe the patient should remain in bed, with the hips elevated. Complete Fast No. 3 should be started immediately and continued until the acute symptoms subside, the patient drinking freely hot water and taking full hot enemas.

The free drinking of hot water will induce frequent urination, which may be painful for a time, but since it helps in cleansing the bladder, the urethra, and the blood stream it should be continued. If the prostate gland is so swollen as to prevent urination, the catheter will have to be used, but this should be done only by a physician or an experienced nurse. Such swelling should soon subside under the treatment here advised. But should an abscess form, surgical interference may be imperative.

The pain may be relieved by hot compresses or the hot-water

bottle to the perineum and lower abdomen or by the use of a hot sitz-bath for ten or fifteen minutes daily or twice daily. If there is much fever, however, better results may be obtained by hot rectal irrigations, using a special two-way catheter, or even the vaginal douche tip of a fountain syringe outfit so that the water may run out as fast as it goes in. After the hot irrigation the rectum should be irrigated with a pint of cool water, or less if there is much pain. Every night before the patient goes to sleep a cold wet pack should be applied to the perineum and bound on with a T-bandage. (See *Compresses*, under *Water and Health*, Vol. VI, Sec. 2.) If fever should become high the cold abdominal pack should be applied once each day until the symptoms subside. This pack may include the hips. Rest in bed will be required by the fever and complete sexual rest should be observed for several months in order to allow plenty of time for recuperation.

When the acute symptoms have subsided the fast may be broken with an appropriate fast-breaking routine, after which a diet mainly of raw fruits and vegetables and some form of sour milk should be used. This diet is alkalinizing, cleansing and laxative. It should be used until the gland has been restored to its fully normal condition. After starting to eat, a daily alternate hot and cold sitz-bath will be the only hydropathic treatment required, though enemas should be continued until the bowels move naturally. The sitz-baths may be continued to advantage for several weeks. A vitality-building routine suited to the strength of the patient should be strictly adhered to.

In *chronic prostatitis* the chief aim should be the general building up of the body. Avoidance of all sexual excitement, erotic thoughts, etc., is highly important, otherwise a cure cannot be obtained, for the congestion caused by these conditions prevents the subsidence of the inflammation.

Prostatitis,
Chronic,
Diet for

Complete Fast No. 3 should be followed seven to thirty days, the period depending upon the general vitality of the patient. As a rule, the longer the fast the more speedily will the cure be effected. Use a fast-breaking routine adapted to the length of the fast. A milk diet seldom is recommended unless there is assimilative trouble and the weight of the patient is much below normal. Often the large amount of urine produced on the milk diet causes some distress through unusually frequent urination and trouble in starting the flow of urine.

Where a milk diet is used it may be taken for three or four days in succession, and thereafter a limited diet, such as is described in Nos. 1 to 3. This latter diet should be taken for some weeks. If it is found, however, that the weight and strength are not properly maintained thereby, a milk diet may be substituted for four or

five days, when a return may be made to the limited diet; or Salad Diet No. 6 may be used regularly.

A fresh fruit and raw vegetable diet properly combined with a small quantity of cottage cheese and milk will be found an excellent diet in this condition.

The plan of the treatment is to use as little food as possible and yet maintain weight, strength and endurance. If one is above normal in weight so little food may be taken that there will be a gradual loss to normal. Activity of the bowels is especially important, so in many cases a full hot enema should be one of the first steps in the treatment, repeated thereafter as may be necessary. However, the daily hot rectal irrigation will take care of the bowels and at the same time will be of greater benefit to the prostatic condition.

Prostatitis,
Chronic,
Hydro-
therapy for

Hot and cold sitz-baths taken morning and evening will assist recovery. A hip pack is also of much value if applied at night and allowed to remain until morning; or a wet towel placed around the hips may prove of material aid. The free drinking of water is especially advised, unless the milk diet is followed.

Diathermia and spinal manipulation are of much value in many cases; so also are massage and vibratory massage. Infr-red irradiations to the lower abdomen and lumbar spine, especially when followed by the cold sitz, a cold spray or other cold application, will prove helpful. A cold douche, spray, or needle bath or cold compresses to the inner thigh surfaces are additional measures of benefit. Color therapy may be of assistance. Many physicians now employ organotherapy, using prostate, testicle and thyroid with good results.

As a rule, recovery is comparatively slow. It may be hastened by continuing the fast for a long period, but it is well to remember that the fast may be so prolonged that one's health may suffer. Discretion must therefore be used in this connection. Alternate Fast No. 5 sometimes is preferable to others.

If the patient is physically strong, Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18; also Hip and Spinal Manipulations Nos. 27 to 32 are of value, using the former in the morning and the latter at night. Special Manual Treatments Nos. 11 to 16 also will prove of much benefit.

PROSTATITIS.—See *Prostate Gland, Inflammation of*.

Proud Flesh

PROUD FLESH (*Exuberant granulations*).—Fleshy, raw formations on healing wounds, that may remain for a long time and that bleed easily. They should be treated by steam and cool compresses or affusions and by the fast or partial fast, followed by a milk diet, or some such eliminative diet supplying an abundance of alkaline mineral elements as Salad Diet No. 5 or 6.

PRURIGO.—An inflammatory skin disease of childhood or later life. See *Skin, Diseases of*, for general treatment.

PRURITUS.—Pruritus is an intense itching of the skin. It may occur in certain parts of the body or it may be general. Probably in most cases it is of nervous origin, producing extreme sensibility or irritability of the skin, though in some cases there is a definite inflammatory process. The patient suffers so intensely he cannot resist the inclination to scratch, so he thus may induce eczema or other skin conditions. The attacks are most common in the evening, usually when undressing, and throughout the night, interfering greatly with sleep. Heavy or warm clothing makes the condition worse. (See treatment under *Skin, Diseases of*.)

Pruritus

PRURITUS VULVÆ.—Intense itching of the external genitals of the female. It often accompanies vulvitis and usually is the result of acrid or abnormal discharges from the diseased organs, or of general uncleanness of the parts.

Pruritus
Vulvæ

Treatment should be directed first toward removing the cause, whether it be uncleanness or disease of the internal generative organs. A solution of boric acid may be suggested as a harmless or efficacious cleansing agent to be used as often as necessary. If there is any inflammation of the parts this should receive immediate attention. This condition readily responds to actinotherapy, particularly by local mercury-arc or carbon-arc lamp. Sometimes sugar in the urine will cause a severe itching of the external genitals; hence when itching occurs it is well to have an analysis of the urine made to determine whether or not there is any sugar present. If there is any, the treatment for this condition is to be observed. (See *Diabetes*.)

PSORA.—See *Psoriasis*.

PSORIASIS (*Dry Tetter*).—This is a chronic skin disease of an inflammatory type characterized by an eruption in which white scales resembling mother-of-pearl are found upon a red base. This is a disease usually beginning in young adult life. In the early stages the eruption is composed of red papules which in a few days begin to show the white scales. These scaly papules increase in number and size. Later the central part of the patch disappears, leaving the margins pale, thus producing a sort of ring-shaped eruption. The lesions are dry and the red areas are sharply defined, differing from eczema in that the latter is moist and the patches fade away into the surrounding areas. In eczema there is extreme itching, while in psoriasis there is none. Upon removing the shiny scales a red, bleeding surface is found.

Psoriasis

Treatment. Although the medical profession does not know the precise cause of this disease, we may be certain that it is the manifestation of a chemical derangement of various ingredients

Psoriasis,
Treatment

within the blood. A dietetic specialist of wide experience maintains that the blood chemistry of the psoriasis sufferer will reveal an *acidosis*. This is a chemical condition of robbery of the alkaline salt ingredients from the normal blood-stream. The treatment, therefore, should be of a rigorously eliminative as well as replacing nature, together with constitutional measures for building vitality.

Psoriasis,
Prolonged
Bath in

By way of local treatment one of the best measures is the use of steam. The steam will loosen the scales and facilitate their removal, leaving the surfaces and tissues in a septic condition favorable to prompt healing. Dr. McCaskey's idea and treatment technique is simplicity itself. He corrects the acidosis; feeds the sufferer limited carbohydrate foods *only* (see *Limited Carbohydrate Diets*); and he has the skin *severely sunburned* weekly until the spots are brought under control.

In an extreme case prolonged warm baths at a temperature of 100 degrees to 102 degrees F., are to be recommended; the patient to remain in this bath for three or four hours every other day. On alternate days, use a hot wet pack for several hours. Each of these treatments should be followed with cold ablutions, showers or affusions, to restore tone to blood vessels and tissues. However, such hot baths cannot be employed when there is sunburn. Bran baths are of value also. (See *Emollient Baths*, in *Water and Health*, Vol. VI, Sec. 2.)

Outside of these local treatments, the patient should practice the free drinking of water. To insure activity of the bowels, use enemas. The patient should live out-of-doors, use air-baths, dry friction baths and sun-baths, take long walks and such other general exercise as may be suited to his condition. The sun-bath or ultra-violet bath or the carbon-arc artificial sun-bath should be taken three or more times a week until the entire body is as deeply pigmented as possible, then often enough to maintain this degree. No factor will be of greater value than this.

Psoriasis,
Diet in

In many cases a strict dietetic routine may be necessary. In most instances, a partial fasting routine or a limited diet will suffice. But in more serious instances a short fast followed by a limited diet in the case of one who is strong and of full weight, or the exclusive milk diet in the case of one who is lacking in both weight and vitality, will be called for. Complete Fast No. 3, followed by Fast-Breaking Routine No. 2 is suggested; and later a milk diet, or a return to a balanced natural diet, according to the requirements of the case. Sufficient laxative foods must be used to insure two or three bowel evacuations daily. Meat, refined sugars, mineral salt and all white-flour products must be excluded from the diet if a real cure is to be effected.

PSYCHOSIS.—A disorder of the mind. See *Insanity*.

of salt or mustard in a glass of luke-warm water may be given at once. The patient should now be allowed to rest for an hour or two in a place where he can obtain a plentiful supply of fresh air.

After this a full hot-blanket pack may be given to induce free perspiration and at the same time to stimulate the spinal nerves. If the facilities for the pack are not available, a hot foot-bath with blankets about the body, or a full hot immersion bath, or (if the patient is able to be up and around) a steam bath may be substituted. After the patient has perspired freely a quick, cool sponge bath should be given. Then he should be warmly covered in bed. Later, if the patient seems weak, hot spinal compresses may be applied for fifteen minutes.

Ptomaine
Poisoning,
Fast and
Diet in

Absolutely no food is to be allowed until all symptoms totally disappear. A diet of nothing but fresh fruit should then be adhered to for a day or two, followed by several days on fruits and vegetables, though often a Cereal Broth Diet (Nos. 2, 3 or 5) will be more acceptable at first. The regular diet must be resumed gradually, with special care to avoid overeating. Enemas should be continued as necessary until the bowels move naturally. An alternate hot and cold sitz-bath may be taken daily for ten days to assist in restoring the tone of the digestive organs. If any general symptoms remain after the first day of the attack it would be well to give a full wet-sheet pack; or, if the patient's reactive powers are poor, a cold abdominal pack in the morning and hot spinal compresses in the afternoon. As soon as possible, a vitality-building routine suited to the strength of the patient should be adopted.

In those cases where there has been a chronic inflammation of the intestines, the fast should be lengthened and should be followed by the milk diet in accordance with the directions given under the headings *Enteritis*, and *Intestines, Diseases of*.

Ptosis

PTOSIS.—Dropping or displacement of a part. See list of cross references under *Prolapsus*. Specifically, when used without modifying, ptosis means a drooping of the upper eyelid, due to faulty development, to paralysis of the muscles that raise the eyelid, to a weighting of the lid by a tumor, or to a recession of the eyeball. There is no specific treatment; but constitutional treatment, massage and electricity offer some hope of improvement.

PTYALISM. (*Salivation, Sialism, Sialorrhea*).—An excessive secretion of saliva. See *Salivation*.

Puerperal
Fever

PUERPERAL FEVER. (*Puerperal Sepsis, Puerperal Septicemia*).—Septicemia occurring after childbirth. It may be infectious or non-infectious. The *infectious* or most common form usually occurs in those cases where the uterus does not cleanse itself, the remaining material, undergoing putrefaction, producing ptomaines that are absorbed. It may be due also to various kinds of infections resulting

The fast should be continued until the fever is gone, after which orange juice may be allowed for one day, and then Milk Diet No. 1 should be used. The daily quantity of milk should be increased as rapidly as possible without causing digestive disturbances and the patient should drink as much as she can take comfortably. To increase the quantity of liquid make the milk half water, if whole milk cannot be handled. The milk diet is of the greatest assistance in these cases, as it quickly increases circulation and elimination and helps restore local health and tone. In some cases, if treatment is begun promptly, a day or two on oranges followed by the milk diet will abort the symptoms or greatly minimize them and the danger. The diet should be continued until the patient is definitely and completely well. Enemas should be used as necessary. It would also be well to use a cold abdominal pack for a week or more. After the patient gets out of bed a suitable vitality-building routine should be adopted.

When these measures are employed there should be no complications; but milk-leg may develop and in severe or neglected cases, peritonitis may set in. When these conditions develop, or if erysipelas or malaria is present, appropriate treatment should be applied, as suggested under their respective headings. Operation, even curettage, seldom if ever will be required when fasting, milk diet and packs are employed. This applies to infective as well as non-infective cases.

Puffiness

PUFFINESS.—A dropsical condition, a symptom of certain diseases, also an indication of poor circulation and enervation. (See *Anasarca* and *Dropsy*, also *Circulation, Defective*.)

Purpura

PURPURA.—A disease of the skin due to a toxic condition of the entire organism and characterized by the appearance of dark red or purplish patches on the body due to subcutaneous hemorrhages. Internal hemorrhages may also take place. The mucous membranes of the mouth and the throat are frequently affected, as well as the skin of the body. Edematous swellings sometimes occur, in severe cases there may be bloody urine and heart complications. It sometimes is fatal.

Purpura generally appears first upon the legs and the arms and may extend to the rest of the body. It is likely to appear without any other symptoms, or it may be an accompaniment of other diseases, such as gout, rheumatism, cancer, or any acute infectious disease, in which the capillary circulation is obstructed.

**Purpura,
Treatment**

Treatment. The only treatment of any value in this disease is constitutional. There must be a radical chemical purification and chemical upbuilding of the blood. The excretory organs must have their functions increased, for they then will be better able to eliminate the poisonous accumulations in the body. Increased

activity of the skin also is an important matter, yet it usually is advisable for the patient to rest in the recumbent posture, or at least to rest from physical activity, especially in case of pain.

Measures that induce perspiration will be of value. They may include steam baths once or twice a week. Any other forms of bath that induce perspiration may be employed. Some of these entail a considerable tax upon the vitality; therefore, the condition of the patient must be taken into consideration in connection with their use. Perhaps hot wet-sheet packs administered daily offer the most satisfactory form of treatment. The pack should be allowed to remain for one to two hours or until such time as it becomes uncomfortable to the patient. If little reactive power is exhibited by the sufferer, then abdominal packs should be used instead, preferably hot, but cold if they prove to be more pleasurable to the patient. The neutral bath for thirty to sixty minutes three times a week will not overtax the energy, so will be of benefit. A cold towel rub should be given once or twice a day, using care not to injure the skin. Gentle massage also will be of value.

Purpura,
Sweating
Treatment

Fasting will bring beneficial results, the duration of the fast to be determined by the weight and condition of the patient. As a rule, the longer the period the more effective will be the results. Fasting Routine No. 3 is recommended because of the value of copious water drinking which it includes. The fast may be continued for three to ten days, after which use Fast-Breaking Routine No. 1 or 2. In all cases where the vitality is low and the weight much below normal, this should be followed by Milk Diet No. 1; in other instances the patient may gradually return to his ordinary diet, but must positively avoid overeating.

Purpura,
Fasting in

If a complete fast is inconvenient, Partial Fasting Routine No. 1, or No. 4 may be substituted; these permit the use of acid fruits or fruit juices. During the fast full enemas may be used daily or every other day. If necessary, they should be used after the fast has terminated.

With the return to a general diet the free drinking of water is especially to be recommended. Great care must be taken also to maintain activity of the bowels.

Air-baths and sun-baths are especially valuable in stimulating the activity of the pores of the skin and promoting the general health. Fresh air must be available at all times. If possible, the patient should live and sleep out of doors. Long walks will be especially advantageous, together with such other exercises as the patient is in condition to take. In short, he should adopt a general vitality-building routine suited to his condition and practice it faithfully day by day.

PUTRID FEVER.—One name for *Typhus Fever*, which see.

Pyelitis

PYELITIS (*Pyelonephritis*).—Inflammation of the kidney, with special involvement of the pelvis of the kidney. The symptoms of acute pyelitis often come on suddenly. There are malaise, fever, shivering or chills, pain and tenderness in the loin, increased urine and increased frequency of urination. The fever may reach 104 degrees. The urine contains a considerable amount of pus and there may be considerable albumen also. The disease may terminate in complete cure, sometimes rapidly if treatment is instituted early; or a chronic pyelitis or a purulent disease of the kidneys may develop. (See *Kidneys, Diseases of*, for causes and treatment.)

Pyemia and Septicemia

PYEMIA and SEPTICEMIA (*Sapremia, Septemia*).—*Septicemia* is a form of blood-poisoning in which the blood is polluted with disease-producing germs or their toxins. Abscesses may be formed, but often there are none. *Pyemia* is a form of septicemia in which there is pus in the blood, resulting in foci of suppuration, usually manifested by multiple abscesses, phlebitis and other serious symptoms. The two diseases are practically the same and are synonymous with blood-poisoning. The exciting cause in either case may vary from a rusty pin prick to a severe wound, either of which may open the way to absorption of septic material.

Septicemia, Forms of

There are two forms of septicemia aside from the pyemic form: septic intoxication and septic infection. *Septic intoxication* is most commonly met with in obstetric cases, where a clot of blood or a portion of the placenta or membranes, permitted to remain within the uterus, has become putrid from decomposition. Here the poisonous products of the decomposing tissue and of bacterial action have been absorbed and have affected the entire body. (See *Puerperal Fever*.) *Septic infection* is due to the presence of both the bacteria and their toxins in the blood, as well as systemic toxins in pronounced degree.

The *symptoms* vary in intensity with the amount of systemic toxemia and the amount of poison absorbed into the blood-stream. In all forms there are rapid pulse with fever, headaches, aching of the joints, severe chills, nausea and vomiting, diarrhea, and delirium, sometimes followed by coma and death. In the milder cases there are simply restlessness and variable fever. (For treatment see *Blood-Poisoning*, and *Puerperal Fever*.)

Pyorrhea

PYORRHEA (*Pyorrhea alveolaris; Rigg's Disease; Fouchard's Disease*).—This is a suppurative inflammation of the periosteum lining the sockets of the teeth. It is a chronic and troublesome disease, one of the commonest complaints to which the human race is subject.

The *symptoms* of pyorrhea are sensitive gums, some redness, often a slight pussy-looking line at the edge of the gums, an oozing of pus between the gum and the teeth, degree of some foul odor to

the breath, and, finally, retraction of the gums, in some cases so great as to expose the teeth down to their entrance into the sockets. Eventually the teeth become loose and fall out or have to be removed.

The *treatment* of pyorrhea consists in attention to the diet, the drinking of large amounts of water, the building up of the vital forces, the keeping up of the activity of the bowels and the use of cleansing agents and mild antiseptics in the mouth. One of the best of all procedures is the chewing of whole wheat. Procure ordinary raw whole grain wheat, and let it soak for a few hours until it is barely softened from its original stony hardness. Then chew two or three mouthfuls twice daily, preferably before or with meals. Raisins may be eaten with the wheat to increase palatability. If the pyorrhea is not extreme and the teeth not yet loosened the plain unsoaked grain wheat may be used. Some cases that have resisted expensive and fairly prolonged "specific" treatment have been cured within a short time by this method.

Pyorrhea,
Treatment

One of the most valuable measures for remedying the complaint is rubbing the gums, preferably with pressure, between thumb and first finger. This should be done twice daily, morning and evening.

Of course, the diet should be such that every mineral element is provided. The raw food diet insures this, provided it contains all the natural foods in good balance and at the same time gives the teeth and gums the additional work they need; also, by this diet refined sugars and white-flour products are excluded and this is of further benefit. Boric-acid solution, bicarbonate of soda washes, and other purifying lotions are to be recommended. Some physicians and dentists recommend placing a small amount of bicarbonate of soda on the toothbrush each time the teeth are brushed. Lemon juice, diluted, is also recommended. In brushing the teeth the backs as well as the fronts should be reached and the brush moved not only horizontally, but vertically, so as to remove any accumulations which ordinarily would not be reached between the teeth by the usual horizontal motion. Silk dental floss should be drawn between the teeth frequently (once or twice daily or perhaps after each meal) to insure the removal of food particles.

PYROSIS.—See *Heartburn*, which is the more common term.

PYURIA (*Pus in the Urine*).—This is a symptom rather than a disease. The pus may be coming from any part of the genitourinary tract—the urethra, vagina, bladder, prostate gland and kidneys may be affected. But regardless of the location of the suppuration, the fundamental cause always is a general toxemia, plus infection. It may result from acute or chronic inflammatory processes. The treatment of these various conditions which give rise to pyuria is fundamentally the same, though certain modifications and

Pyuria

variations may be required in individual cases. (See *Pyelitis*, and *Bladder, Diseases of*, for symptoms; also *Urethritis*; *Gonorrhea*; *Vagina, Diseases of*; *Prostate Gland, Inflammation of*; *Bladder, Diseases of*; and *Kidneys, Diseases of*.)

Quinsy

QUINSY (*Phlegmonous Tonsillitis*; *Peritonsillar Abscess*; *Circumtonsillar Abscess*).—This is a disease of the tissues surrounding the tonsils, though it also may involve the tonsils themselves. The usual predisposing causes are acute or chronic tonsillitis and a general lowered vitality. (See *Tonsils, Diseases of*.)

RABIES. See *Hydrophobia*.

RACHITIS.—See *Rickets*.

RANULA.—See *Frog-Tongue*.

Rectal
Diseases

RASH.—See *Eruption*, page 3329.

RECTUM, DISEASES OF.—The rectum, situated at the lower end of the colon, is a storage receptacle for the waste material of the food prior to elimination. It is subject to a variety of ailments, among these hemorrhoids, or piles. (See *Hemorrhoids*.)

Rectum,
Abscess of

Abscess of Rectum (a circumscribed collection of pus in the rectum). The rectum is one of the most frequent sites for abscess formations. The fundamental cause is the same as that of abscesses elsewhere; namely, general toxemia and enervation. The rectum is especially subject to abscess, because of the prevalence of chronic constipation and hemorrhoids with resulting fissures and ulcers, which may become infectious. Abscess is likely to give rise to a fistula.

Symptoms. Though there is frequent desire to defecate, this is controlled as much as possible because of the pain and tenesmus associated with defecation. Treatment is the same as for abscess. (See *Abscess*.)

Rectum,
Catarrh of

Catarrh of the Rectum. This disease rarely occurs as an independent ailment; it usually is accompanied by more or less catarrh of the alimentary canal, especially the colon. When one realizes that catarrh of any part is merely a vigorous eliminative effort on the part of the body to make good the deficiency of normal eliminatory organs, one then understands that the catarrh is not a disease, but a symptom of a general disease—toxemia.

The *symptoms* are more or less constant desire to defecate, especially after the passage of stools; varying degrees of pain during defecation; the presence of mucus and sometimes blood in the discharge; and alternations of diarrhea with chronic constipation. The condition may be attributed in most cases to a neglected costive condition. The ailment often is combined with hemorrhoids, when the pain experienced on the passage of stools is greatly increased and blood and sometimes pus are discharged with the excrement.

Catarrh of the rectum requires the same *treatment* as catarrh of the bowels. (See *Intestines, Diseases of*.) In severe cases an extended fast will be necessary, though where the patient is much below weight alternate Fast No. 5 may be better, followed by some such diet as Salad Diet No. 6.

Fistula of the Rectum, another common disorder of the lower bowel, almost invariably arises from an injury to the rectal mucous membrane, such as from the passage of a spicule of bone, or from a fissure caused by the straining in severe constipation. Inflammatory conditions follow and an abscess forms in the tissues in the vicinity. This abscess burrows through the tissues and points on the skin beside the anus. When the abscess discharges externally it leaves a canal or fistula, the external opening being on the skin near the anus and the internal opening inside the rectum, usually at the point of injury to its mucous membranes. Occasionally, however, this fistula, through inability to pierce the external skin, forms an internal cul-de-sac, or blind opening (blind fistula).

Rectum,
Fistula of

The *symptoms* which indicate the formation of a fistula are similar to those present in the case of piles. Hemorrhoids, either external or internal, often precede this disorder. There is a constant feeling of discomfort within the anus, intense irritation and itching, occasional pain of a burning nature, blood and pus are discharged with stools and through the external fistulous opening.

When a tuberculous condition is present in other parts of the body this affection seriously complicates the fistula.

Treatment. Fasting is important. If one has the weight and strength to continue it for an extended period it will greatly assist in bringing about a cure. In rare cases where the fistula is a serious one, operative measures may be needed, but even then natural methods of treatment will be of value in obtaining good results. In most cases, however, a fast followed by a milk diet after the fistula is healed, combined with enemata and free drinking of water for cleansing the alimentary canal, will result in a complete cure of this affection. (See *Anus, Fissure of*.)

Prolapsus (or Prolapse) of the Rectum, a frequent complication of hemorrhoids, is due to the protuberance of a small portion of the rectum through the opening of the anus. This abnormality always is the result of severe constipation coupled with violent and repeated efforts to defecate. The first sign of this complication is the appearance of an inch or two of the rectal membrane concurrently with the passage of feces. The prolapsed part usually returns to its place without assistance. When neglected the prolapsus increases in size until a considerable portion of the rectum protrudes, necessitating artificial aid to induce its return. The portion extended becomes inflamed and bleeds.

Rectum,
Prolapse of

Rectal
Catarrh,
Treatment

Treatment. This should be practically the same as given under hemorrhoids. A cold sitz-bath will be of special value, also the free use of enemas to accomplish a thorough cleansing of the alimentary canal without too much strain. A vibrator with rectal attachment can often be used to advantage. Sometimes a hot sitz-bath, especially a shallow one, or a hot sterile compress will be of greater aid, by reducing both irritation and congestion and by bringing about some degree of shrinkage of the protruding tissues.

A fasting routine would be advisable, to be followed by a natural diet that produces normal frequency of bowel action. The stools should be soft formed, neither too "well formed" nor too soft. If the swelling is not too great the prolapsed portion, by gentle pressure, may be easily replaced. Before attempting this a cold application should be held against the prolapsed parts for a few minutes to cause shrinkage. Then a piece of gauze or linen smeared with vaseline should be laid upon the protruding parts and gentle pressure made. Rough handling will only increase the swelling and render replacement more difficult or impossible. Defecation while the patient is reclining or standing often will prevent the rectum from prolapsing when it is inclined to do so; but in any case straining must be avoided. (See also *Anus, Prolapsus of.*)

Rectum,
Tenesmus of

Tenesmus of the Rectum. This cannot be described as a disease in itself, but it often accompanies the disorders previously mentioned. It is characterized by a persistent and more or less painful desire to defecate without any result. The condition is due to piles, catarrh, ulcers, fistula, or any other disease of this organ. Constant and abnormal irritation and itching are among its symptoms.

The treatment should involve attention to the primary disease from which it springs. A hot sitz-bath is most valuable as a means of relaxing the tension and quieting the irritability. After ten minutes' use there should follow cold local compresses. The rectal attachment of a vibrator can often be used to advantage. General exercises for strengthening all parts of the body also are desirable. In most instances, a fast of one or two weeks would be advisable, adopting Complete Fast No. 3, and following it with Milk Diet No. 1.

Irrespective of all else, care should be taken to insure activity of the bowels. If enemas are used a warm full enema should be taken and after that a small cold rectal irrigation. This will cause a contraction of the tissues and restore their tone. Sometimes a hot rectal irrigation will be of benefit. A hot spinal pack taken once each day will be of great advantage with Special Manual Treatments Nos. 11 to 16. Self-Applied Movements Nos. 1 to 6 are also to be recommended. Indeed, all the exercises illustrated in the discussion of Special Exercise Treatments which involve the lumbar

region and the hips will be of great advantage. (See Vol. VI, Sec. 3.) A general vitality-building routine is in every case essential.

Stricture of the Rectum may be of a simple or malignant character. The simple form is a fibrous stricture caused by foreign deposits due to inflammation. It sometimes follows syphilitic or other ulceration. In some cases fistulas and hemorrhoids form below the stricture. The *malignant* stricture is of cancerous origin.

Stricture of the rectum in its simple form should have substantially the same *treatment* as fistula, for it may nearly always be remedied by an improvement in the circulation and tone of the tissues, any foreign deposits being more readily absorbed as a result of a routine, which includes fasting, free water drinking, enemas, etc. Mechanical dilation may be helpful. A malignant stricture should have the same treatment as cancer, though removal by means of an operation may be necessary in some cases. (See below.)

Cancer of the Rectum. This is the most serious disease that afflicts the organ. In many cases it is preceded by hemorrhoids of a severe nature.

The *symptoms* include pain on the passage of stools; a general feeling of discomfort before and after defecation; blood, mucus and tissue débris intermingling with the feces; malnutrition; lifeless, sallow skin; disturbances of the digestion; progressive emaciation and general exhaustion. Advanced cases may be temporarily alleviated by surgical treatment.

Treatment. Cancer of the rectum requires the same treatment indicated for cancer of any other part of the body. (See *Cancer*.) But special attention must be given to measures for cleansing and establishing the continued activity of the alimentary canal. This is particularly important, inasmuch as a disease of this kind invariably is preceded by years of constipation and, usually, of hemorrhoids. The treatment for constipation and that for hemorrhoids should be carefully studied and adapted to a case of this kind.

A fast is especially important. If the patient is of normal weight or above, Complete Fast No. 2, as long as possible and with considerable quantities of water daily, is recommended, to be followed by Milk Diet No. 1. In some cases it is better to use Partial Fast No. 1 for a few days, followed by Salad Diet No. 5 or 6, with mineral oil regularly with each meal to keep the bowels well open without too much roughage. Naturally a vitality-building routine, including all measures for improving the general health, is of the greatest importance.

RELAPSES.—See *Complications*.

RELAPSING FEVER.—A form of fever characterized (in the European form) by the presence of acute symptoms for about a

Rectum,
Stricture of

Rectum,
Cancer of

Relapsing
Fever

week, followed by apparent recovery for another week and then a return of symptoms. A number of repetitions of the fever may occur. The disease may continue for anywhere from three weeks to three months, depending upon the removability of the causes and the treatment used. Under proper treatment each attack is milder than the first and the disease does not last long.

The symptoms are supposed to be due to a specific microorganism, the spirochete of Obermeier. However, from the facts that the germ varies in virulence in different parts of the world where the disease occurs and the disease often is associated with poverty and famine, it readily can be seen that the real causes are lack of vitality, bad hygiene and general wrong habits of living. This disease is found more often in Russia, India and in northern Africa (where it is called tick fever) than in the United States.

Relapsing
Fever,
Symptoms

Symptoms. There usually is a period of incubation of five to seven days, followed by a sudden invasion with severe chills, headache, pains in the long bones, vertigo, fever, vomiting and sweats. The temperature on the first day reaches 103 degrees or 104 degrees, and the pulse becomes very rapid (110 to 170 or more). Slight jaundice, constipation or sometimes diarrhea, are present, the movements sometimes containing blood. In five to seven days the fever suddenly ceases, leaving the patient weak. About a week later comes a relapse, lighter than the first attack. While there may be several recurrences, there usually is not more than one. During the attack a minute spiral germ is present in the blood.

Relapsing
Fever,
Treatment

Treatment. This disease requires both elimination and improved nutrition; but the presence of acute symptoms indicates that the elimination must come first. Hence, complete Fast No. 3 should be instituted immediately at the first sign of symptoms. The water taken may be hot or cold, depending upon the absence or presence (and degree) of fever. Full hot enemas should be given daily unless fever is high, in which case both quantity and temperature of the water should be reduced. The temperature may be lowered to 75 degrees. All water should be boiled before use.

If the patient is much depleted in vitality, a moderate amount of fruit juices may be permitted after the first day or two; or if the fruit cannot be obtained a vegetable broth may be used. No other food should be allowed until the acute symptoms subside. Complete rest and a plentiful supply of fresh air are necessary. The patient should receive a tepid sponge bath or neutral warm bath daily and his environment should be kept as clean as possible.

If the patient is strong enough a cold wet-sheet pack may be given daily until the fever is gone. On the first day, when there are likely to be chills or if the patient's reactive powers are poor, a hot-blanket pack may be used instead, and hot-water bottles may be

used to supply additional heat. If the patient is weak and much depleted in vitality the pack should be limited to the abdominal region, using cold or hot according to his reactive powers. When the abdominal packs only are used, alternate hot and cold spinal compresses may be applied at some other time of the day, three minutes for the hot and one for the cold, making several changes, in the usual procedure. Overtreating must be guarded against.

When the temperature is normal the fast may be broken by using the fruit juices or vegetable broths unless the patient has already been taking these, in which case one more day should be allowed before adopting more solid food. If milk is obtainable this would be the best diet to follow thereafter, employing Milk Diet No. 1. If milk cannot be obtained, a diet of fruit, vegetables and nuts, employing plenty of raw foods and drinking plenty of water between meals, would be next best.

When necessary for the patient to resume his usual diet, this should be done gradually and all the food except meat if that is used, should be taken raw, in order to obtain the largest portion of the nourishment which they contain. A vitality-building routine suited to the strength of the patient should be adopted after the fast is broken, giving special attention to natural or artificial sunbaths if they can be obtained. If the symptoms should come back, the same treatment should be repeated. In most cases the second attack will not be so severe and if the proper treatment is used throughout there should be no further recurrence, nor should any complications develop.

RENAL COLIC.—See *Kidneys, Diseases of*.

RETENTION OF THE MENSES.—In retention of the menstrual flow the menses have occurred but something has interfered with the normal passage of blood through the neck of the uterus and the vagina. The condition is rare, but may arise as a result of extreme malposition of the uterus or obstruction of the passages by tumors or an imperforated hymen, or by some abnormality producing stricture or great swelling of the neck of the uterus. (See *Menstruation, Retained*.)

Retention of
the Menses

RETINITIS.—Inflammation of the retina. (See *Eye, Diseases of*.)

RETROFLEXION.—A bending backward of the uterus upon itself. (See under *Uterus, Displacements of*.)

RETROVERSION.—A displacement in which the uterus is turned backward. (See *Uterus, Displacements of*.)

RHEUMATISM.—Rheumatism is an infection the precise nature of which is a subject of controversy. It may be acute or chronic.

Rheumatism

Acute Rheumatism (Acute Articular Rheumatism, Rheumatic Fever, Inflammatory Rheumatism).—Primarily this is a disease of young adult life, appearing between the ages of 15 and 35 years.

It also is frequently met with in children. Predisposing causes are said to be enlarged tonsils, adenoids, pus pockets in the roots of teeth, pyorrhea and cold and wet climatic conditions. One attack of acute rheumatism predisposes to subsequent attacks. But general toxemia doubtless is the leading underlying cause. It often is difficult to determine the immediate cause of the initial attack or of later attacks.

Rheuma-
tism,
Symptoms of
Acute

Symptoms. It is an exceedingly painful disease, characterized by an inflamed condition of various joints of the body, sometimes coupled with severe heart disturbances.

The ailment begins with a rise in temperature, rapid pulse, severe aching and pain in the joints, sometimes of the entire body, at other times of isolated parts, with complete stiffness of the affected area. The swollen joints become reddened, excruciatingly painful and the least movement or pressure intensifies the suffering. With an increase in fever, profuse and sour perspiration breaks out. The urine is scanty and turbid, with a red sediment.

With alternations in temperature and pain, mild cases of rheumatic fever run their course in a week or two; severe forms often last for six weeks or longer. In its most acute form, with a fever of 108 degrees or more, the brain becomes involved, delirium follows and the end may be fatal. Or, again, the endocardium, or lining membrane of the heart, may suffer from inflammation, affecting the valves of that organ and resulting in death from cardiac failure. Even when recovery follows, the mechanism of the heart may show signs of permanent injury.

Complications of a less serious nature are skin eruptions and rashes, such as prickly heat and nettle rash. These are caused by the irritating nature of the exuding sweat.

Though the exciting cause of an acute attack of articular rheumatism is undoubtedly some exposure or infection, the fact remains that only when the patient's blood is in an exceedingly acid condition is there danger.

Rheumatic fever in children differs somewhat from that in adults. The joint affections often are slight or absent. The only symptom may be the fever, or sore throat. The heart is likely to be affected; frequently heart complications are the only conditions noted at the time.

Rheuma-
tism, Chronic
Articular

Chronic Articular Rheumatism sometimes develops after one or more recurrences of an acute attack. But more often it is gradual and insidious in its appearance. Persons most subject to this disease are those whose occupations expose them to cold and dampness.

The first manifestation is stiffness and pain in one or more joints of the body. Heat and friction usually alleviate the suffering.

The symptoms recur, however, with increased intensity in various joints, especially knees and hands. This disease is the slow development of years.

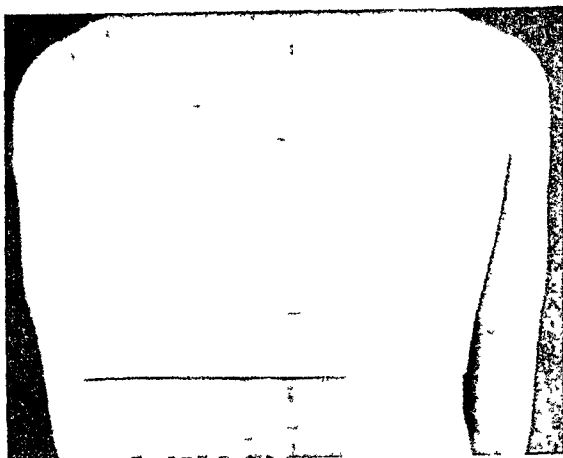
So called *muscular rheumatism* is a common complaint. Its development is characterized by pain and stiffness with loss of mobility in the muscular area affected. In its acute form the muscles are swollen, inflamed and sensitive to the slightest pressure. When chronic the swelling subsides to some extent and pain is experienced only when an effort is made to move the muscle or muscles.

This form of rheumatism may affect every muscle in the body—from those of the scalp to the tendons of the feet. It is not a serious disease, as the acid accumulation which is the cause of the suffering often dissipates after inflammation, or is readily dislodged by the use of natural external remedies and applications, such as massage, friction, electricity, bandages, etc. Being a common precursor, however, of more serious and intractable forms of rheumatism, it should be properly treated in its early stages.

Treatment. Practically all forms of rheumatism are treated in the same manner. There is a difference, however, in the treatment of the acute and chronic manifestations of the disease, for in the case of an attack of the former, drastic methods are necessary to arouse the excretory organs to activity, while in that of a chronic attack much depends upon increasing the general vitality of the patient.

In *acute rheumatism*, activity of the bowels is of the first importance. Enemas may be given for this purpose, though it often is better to treat the condition through the stomach. To this end salt and water may be used. A glass of hot water in which is dissolved a level teaspoonful of salt may be given for two or three days in succession, and satisfactory activity will result. (See treatment for *Constipation*.)

The free drinking of distilled or soft (rain) water is especially important. Complete Fast No. 3 should be followed as long as acute symptoms are manifest, provided the patient is not suffering



Muscular rheumatism and muscle-strain may be benefited by strapping the back with adhesive plaster strips, as here shown.

Rheumatism, Muscular

Rheumatism, Treatment of Acute

from undue vital depletion. If the patient seems to be weak as a result of the fast, a small quantity of grape-juice may be given, though no other food is advised. Special Manual Treatments Nos. 1 to 10 are of especial value in bringing about a recovery. If the patient is fairly strong, Special Manual Treatments Nos. 11 to 16 may be used. Hot abdominal packs are useful. Steam baths are also of value. Wet-sheet packs will prove beneficial.

After signs of recovery become evident the affected region may be swathed in hot cloths and manipulated slightly as is advised in *Exercise as a Corrective Measure* (Vol. VI, Sec. 3), but care must be taken that this treatment is not used to excess; if this mistake is made, the pain is likely to become aggravated.

Rheuma-
tism, Diet in
Acute

When the appetite returns a fast-breaking routine may be adopted in accordance with the length of the fast. An exclusive milk diet is advisable thereafter, unless the inflammation seems to be increased by such diet, in which case it would be advisable to adopt one of the limited diets that appeals to the appetite of the patient, for instance, Limited Diet No. 1, 6 or 8 might be advantageously used for a short time. Let it be repeated that if the milk diet does not seem to aggravate the disease it is an important aid to recovery, so that it is well to adopt it whenever possible. To avoid such aggravation, at the inception of the milk diet the patient should take as much of the fluid as possible so as thoroughly to flush the body. A salad diet, such as Salad Diet No. 5 or No. 6, for a few days also is to be recommended.

Rheuma-
tism, Treat-
ment of
Chronic

In the *treatment of chronic rheumatism* a general study of the probable causes must be made, in search for diseased teeth, tonsils, etc., also a vitality-building process must be adopted, together with the stimulation of the circulation of the affected parts by Special Exercise Treatments. Also to be advised is Complete Fast No. 2, to be followed as long as the patient can endure it without manifesting too great signs of weakness. Fasting might be continued for three to thirty days, depending upon weight and strength. Use a fast-breaking routine appropriate to the length of the fast, a milk diet being then advised for as long as necessary to regain the weight lost during the fast. Colonic irrigations or enemas are highly important.

As with acute rheumatism, so with the chronic, a milk diet may immediately increase the inflammation. Great care should be taken to maintain regularity of the bowels on this diet. For this purpose eat more oranges or grapes with skins and seeds. One hour neutral baths daily, preferably before retiring, should be taken while on a milk diet. In many cases the increase of inflammation will be noticeable only for a week or ten days, after which it will begin to subside; but should it continue, a strict vegetable diet should be

followed for two or three weeks, provided a fast cannot be returned to for another few days. After this the patient may revert to the milk diet, this arrangement facilitating the recovery.

The daily wet-sheet pack, if given in accordance with instructions, will help to overcome the chronic affection, though it is not advised in taking a neutral bath daily.

Special Manual Treatments Nos. 11 to 16 are of value in this ailment as means of stimulating the nerve centers. Exercises that tend to accelerate the vital activity are to be especially recommended, where the patient is able to take them without pain or discomfort.

Rheuma-
tism,
Manual
Treatments

Steam baths may be used to advantage, especially if the milk diet is being followed. Electric-light cabinet baths are of even greater benefit, also sunbath by sunlight or ultra-violet light. Neutral baths of a half-hour to an hour's duration also are excellent in some cases even when not using the milk diet. But a cabinet or a neutral bath must be used with care if any other diet than milk is being adhered to. In other words, the condition of the patient while taking them must be closely watched. If the symptoms of exhaustion appear the patient must be taken immediately from the bath. Radiant light and heat, infra-red rays, fomentations or hot air may be used locally for any local pains.



The hot-water bag is useful in congestion of the lungs, especially in connection with fomentations. Used alone it gives dry heat, but when placed over a wet cloth the application becomes a hot compress. These forms of treatment are also useful in muscular rheumatism and pleurisy.

After any of these treatments a cold application of short duration may be given, followed by wrapping in flannel after or without careful drying. Gentle massage away from a painful area may be of some value, also.

A sufferer from this chronic disease must remember that recovery is slow. No disease is more difficult to cure than chronic rheumatism, especially if it has existed for several years. Nevertheless, in cases even of long standing many recoveries have been effected by continued and persistent use of the methods recommended. When a definite treatment has been adopted and followed with the utmost faithfulness day after day, month after month, and, in some cases, year after year, recovery from this most distressing disease often will ensue. Always the blood chemistry will have to be corrected and sometimes scientifically balanced.

RHINITIS, ACUTE (*Coryza*).—See *Colds*.

RHINITIS, CHRONIC.—See *Nose, Chronic Catarrh of*.

Rhinos-
cleroma

RHINOSCLEROMA.—A granular growth of stony hardness affecting the interior nasal passages. The affection spreads slowly and the nose gradually widens, feels rigid and stiff and sometimes the nostrils are completely occluded. Eventually the whole nose becomes involved. The color varies, but usually is a bluish red; small veins run over the surface, tuberosities form, and the general appearance of the face becomes changed. Treatment must be constitutional, the same as for ozena (which see).

Rickets

RICKETS (*Rachitis*).—Rickets is a childhood disease of metabolism usually due to improper diet, a lack of the proper salts and vitamin substances in the blood, with the consequent softening and disease of the bones. It occurs most commonly at one to two years of age and is rare in breast-fed babies.

Symptoms. Children who develop the disease may be plump, but rather flabby and irritable. They are late in learning to sit up and to walk. The cutting of the teeth also is delayed. There is a tendency to bronchitis. The head is large and more or less square, the soft spot in the top of the head is slow to disappear, the forehead is wide and there may be felt small button-like protuberances at the junctions of the ribs with the cartilages along the sides of the chest (the rachitic rosary). There is an enlarged and swollen abdomen, the so called pot-belly.

The softening of the bones, unless corrected, will produce deformities, such as pigeon breast, enlarged wrist- and ankle-joints and the legs may become bent and crooked from the weight of the body. There may be spinal deformities, also. This disease most often appears in the long bone below the knee, though it also may affect the bones of the arms, the thighs, the ribs and the pelvis—in fact any long bones.

The symptoms which precede this malformation of the bone generally are poor health, night sweats, especially beads of perspiration upon the forehead, digestive disorders, and brief spasms or convulsions. The child shows a disinclination for effort of any kind, soon tires and refuses to sit or stand.

Many other symptoms arise during the progress of this disease: for instance, defects of the teeth, thickening of the ends of the long bones, spinal curvature, spasms of the vocal cords, constipation, intestinal catarrh, baldness, etc. These symptoms usually are ascribed to the general rachitic condition—to the disease it-

self. But here, again, as in so many other diseases, "the cart is placed before the horse." That deplorably deficient condition of the vital fluid provocative of malformation of the bones is likewise



Rickets.
Symptoms

A marked case of rachitis, or rickets. Note the enlarged ankle- and wrist-joints, the pot-belly, the deformed lower limbs, and the broad, flat head.

conducive to the appearance of many other so called diseases, with their thousand and one symptoms.

Rickets,
Treatment

Treatment. Inasmuch as this disease is due to defective nutrition, attention in the first place must be given to the nutritives necessary for the well-being of the infant.

Fasting is scarcely to be recommended in a case of this kind, except for a limited period, say one day, because the child already is suffering from a lack of nutrition and, therefore, has not the strength to endure an extended or strict fast. The blood can be cleansed all that is necessary while at the same time needed vitamins and mineral elements can be supplied. For this purpose is suggested a partial fasting routine or a fruit diet, lasting for two to five days. In this connection Partial Fast Routine No. 1, 4 or 11; or any of the fruit diets will be satisfactory. (See *Dietary and Vitality-Building Routines*, Vol. VII, Sec. 6.)

Rickets,
Diet in

At the termination of such diet may be recommended Milk Diet No. 1, modified in accordance with the capacity of the little one. Perhaps the child will be unable to take more than one-half glass of milk every hour; but in most cases the body of an under-nourished child so craves nutriment that at least three-fourths of a glass can be consumed at a time. This milk diet may be continued indefinitely, if it agrees with the child, or until the child has reached normal weight for its age. After the first month or two, one of the Combination Milk Diets may be taken if preferred, alternating with a strict milk diet.

After such a diet, care must be taken to avoid the dietetic errors that brought about the malady in the first instance. It will be best, therefore, to let the youngster's diet consist of a large proportion of uncooked foods. Green vegetables, fruits and nuts are especially to be recommended. Once a day, the little patient may use the combination of foods given in Cereal Diet No. 1, using quantities of the ingredients suited to its age and digestion. In some cases cod-liver oil should be given daily, in gradually increasing doses, from the first of the treatment until the condition is entirely corrected.

Apart from the matter of diet, everything should be done to improve the health and enable the child to increase its vitality. Active play out of doors is essential in this respect. Instead of sending a child with rickets to school, attention should be centered upon building up its physique. It should be encouraged in those exercises and recreations that will accomplish this important purpose. Many suggestions along these lines may be found in Volume III. When the body has been restored to health and strength the child may take up its studies.

The old axiom regarding a sound mind in a sound body should

be remembered in connection with the treatment of rickets. Since outdoor exercise and appetite are so closely related, the necessity for inducing the child to take the former in order to bring about the latter will be obvious. Also air-baths, sun-baths and dry friction baths will be valuable; in warm weather the less clothing the child wears the better for it. The present-day "sun-suit," consisting of short trunks supported by shoulder straps, should be worn part of the time, at least.

Sun-baths are as important as diet in cases of rickets. The entire body should be exposed nude in accordance with directions given in Volume VI (Sec. 4), observing care that the child does not burn. When sun-baths cannot be conveniently secured the mercury-vapor or carbon-lamp sun-lamp may be used with almost equal benefit. The circulation in the bones of the legs may be improved by alternate hot and cold cloths before retiring. If followed by massage still better circulation and tone of the muscular tissue will be brought about.

Rickets,
Sun-Baths in

The child should be taught to use some of the less difficult exercises for the back. Exercises involving all other muscles may be taken, also, but should be moderate. (See *Exercise as a Corrective Measure*, Vol. VI, Sec. 3.)

RINGWORM (*Tinea*).—A parasitic skin disease which appears on various parts of the body. It is due to the presence of minute parasites, which may infest any part of the cuticle.

Ringworm

The condition appears in the form of one to several slightly reddened spots which soon show a bran-like scaliness. As the spots grow larger the central part clears up while the patch spreads peripherally. These spots may grow sometimes as large as a silver quarter. The central part is left a pale yellowish-brown. More or less mild itching accompanies their appearance.

Ringworm of the Body (*Tinea circinata*) is found most frequently upon face, neck, arms and backs of the hands; but it may affect any other part of the body.

Ringworm,
Types

Ringworm of the Scalp (*Tinea tonsurans*) is marked by circumscribed areas of more or less baldness, together with the appearance of disease of the hair.

Ringworm of the Beard (*Sycosis*) is popularly known as Barber's Itch, which see.

Inasmuch as this skin parasite finds lodgment on the body, it follows that bodily cleanliness usually will prevent its attacks. Nevertheless, there are instances in which the most cleanly individuals may be attacked by the parasite, especially when the constitutional condition of the body invites such attacks.

Treatment. At the first indication of ringworm a vigorous application of soap and water followed by anointing the affected

parts with powdered sulphur mixed with olive oil usually will bring about a cure within a few days. In persistent cases, the treatment prescribed elsewhere for eczema will prove effectual.

Ringworm,
Treatment

As a matter of fact, ringworm seldom attacks those whose skin is not in a receptive condition. To obtain immunity from parasites, therefore, general constitutional up-building should be observed to increase the resistance of the cuticle to this and allied affections. A general vitality-building routine should be adopted, with special attention to air-baths, sun-baths and friction baths, which are especially valuable.

ROUND SHOULDERS.—See Volume III, page 1189.

RUBEOLA.—See *German Measles*.

Rupture or
Hernia

RUPTURE, or HERNIA.—Rupture is a protrusion of any organ or part of the body through an opening in the wall of tissue that normally contains it. The term, however, is applied almost exclusively to rupture in the wall of the abdomen through which portions of the intestine protrude. The abdominal cavity is lined by a membrane known as the peritoneum. In it are openings through which pass nerves, veins and arteries. These vessels are sometimes enclosed in special ducts. The peritoneum is reinforced by various muscles, ligaments, tendons and other tissues. When these muscles are under-developed, or if the tissues are weakened, an extra strain, such as lifting or, in some instances, unusual movements of the body, will cause a portion of either the large or the small intestine to be forced through such an opening, thus forming an external protuberance. There are cases of rupture in which there is little inconvenience, while in others there is great tenderness and pain.

In ordinary hernia the ileum (the third section of the small intestine) is the portion of the intestine which most frequently appears in the hernial opening. The amount of intestine affected may vary from a small part of one loop to several loops or coils. Rupture is much more common in men than in women, the ratio being about five to one.

Hernia,
Irreducible

In cases which have existed for a long time adhesions of the portion of the peritoneum involved, or the formation of fibrous bands, may so complicate the condition as to prevent reduction or replacement of the projecting part of the intestine. This non-reducible condition is called *irreducible hernia*.

A *reducible hernia* is one in which the protruding portion of intestine can be readily pushed back and returned to the abdominal cavity. An *incarcerated hernia* (obstructed hernia) is one in which the passage of bowel contents through the protruding loop of intestine is arrested but in which the blood circulation in the walls of the intestine is maintained, thus preventing the development of gangrene.

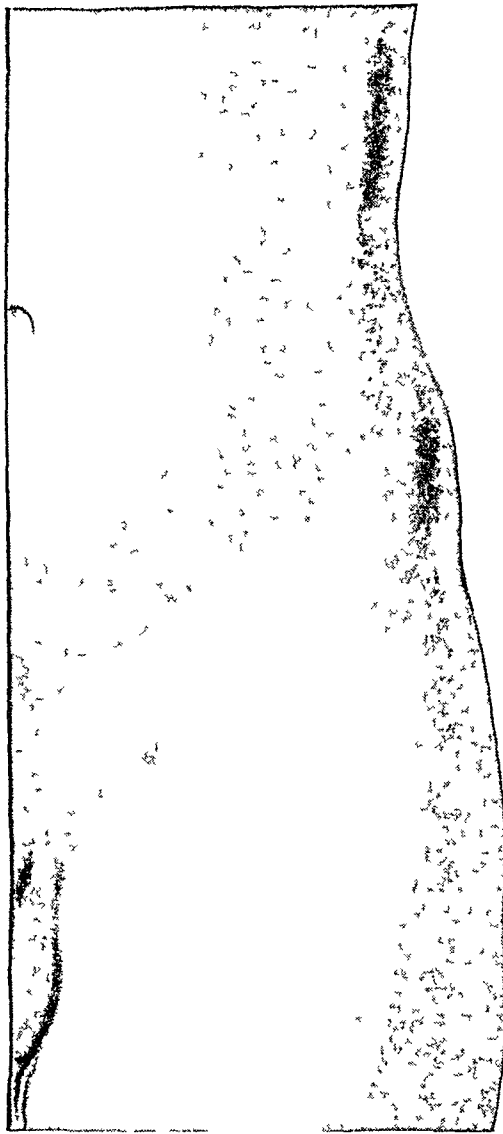
A *strangulated hernia* is one in which the intestine, at the point where it passes out of the abdominal cavity, becomes so constricted that its contents cannot escape and the circulation of the blood is stopped by compression upon the blood vessels. This often occurs when the opening is a narrow one and the intestine has been forced through by some strained movement, such as lifting, coughing, etc. It occasionally happens when a person who has been wearing a truss discontinues its use and suddenly, through a violent exertion, forces the intestine through the small opening.

The *symptoms* of strangulated hernia are colicky pain, flatulence, a feeling of constriction in the lower abdomen, desire to evacuate the bowels without result, complete constipation, vomiting, first of the contents of the stomach, then of mucus and bile, and finally of fecal matter which is unable to pass away in the natural manner. There are weakness, cold sweats and all the evidences of collapse. The neck of the hernial sac becomes swollen, tender and painful. Gangrene soon occurs in the constricted loop of intestine, due to cutting off the blood supply, so unless radical treatment is immediately adopted death will follow. As a rule surgery is necessary in these cases; it should not be delayed too long.

Varieties of Hernia. There are several varieties of hernia, named usually from their location. They are *inguinal*, *scrotal*,



Femoral hernia, or rupture, is confined almost entirely to females. The protrusion of intestine is forced through the opening at the head of the upper leg-bone (or femur), through which pass the larger arteries and veins of this region.

Hernia,
VarietiesHernia,
Inguinal

Hernia or rupture protruding through the left inguinal canal in the lower abdominal wall. In this form of rupture the intestine sometimes descends into the scrotum.

femoral, umbilical and ventral. These various kinds of hernia usually are more or less easily diagnosed from the external swelling to be found at the affected site, this swelling also being likely to become larger upon exertion or upon standing up. The swelling may disappear upon pressure or upon lying down. If the fingers be held against the swelling and the patient be made to cough, an impulse caused by the outward pressure of the swelling may be felt. Ordinary hernia may be painless, or it may cause dull aching, or even fairly acute pain upon walking or exercising.

For *Rupture in Infancy* see *Navel Diseases*.

Inguinal Hernia is by far the most common form of rupture, at least 75 per cent. of all cases being of this variety. It is found chiefly in men and most frequently on the right side. In this variety the intestine protrudes in the region of the groin, having pushed its way through the inguinal rings, which are to be found one at each end of the inguinal canal. This canal is the opening in the lower abdominal wall through which

pass, in the male, the spermatic cord, the vas deferens, the blood vessels and the nerves, and in the female, the round ligament of the uterus.

The external and internal rings spoken of are composed of connective tissue fibers and muscular fibers. The inguinal canal averages about one and one-half inches in length. It is along this canal that the testicle descends from the abdominal cavity into the scrotum about one month before birth. The canal does not contract and close up properly in some cases, rendering this a weak and vulnerable spot which may predispose to rupture.

However, here, as in other locations, a general condition of weakness and laxity of the tissues is really the principal predisposing cause of rupture. Muscular vigor, a good state of nutrition and good circulation all are essential in building up these tissues. Again, in the normally healthy individual the inguinal canal passes through the abdominal wall obliquely, so that pressure from behind or inside would have a tendency to keep the abdominal opening closed, thus preventing the escape of any of the abdominal contents into the canal, so any severe exertion, or any coughing or sneezing under such conditions would only hold the canal more tightly closed. Normal muscular development in this region, therefore, would militate against the possibility of rupture. By some people it may be considered peculiar that inguinal hernia is seldom met with among gymnasts, athletes or contortionists. The explanation may be, at least in part, that these individuals keep their muscles in good trim and in a firm, healthy condition.

Scrotal Hernia is a form of inguinal hernia in which the loop of intestine passes through the inguinal canal and downward into the scrotum. Generally it may be reduced by manipulation, the patient lying upon his back with the hips elevated. Special care should be taken in these cases to have a properly fitting truss. Cold sitz-baths are valuable in the treatment of scrotal hernias, as they tend to tone up the tissues of the scrotum and invigorate the body in general. Scrotal hernia sometimes resembles hydrocele, but is to be distinguished from this by its wider neck, its reducibility, by the presence of an impulse against the finger when the patient coughs, by its doughy feel and by its opacity.

Hernia,
Scrotal

A *Direct Inguinal Hernia* is a hernia which does not come down through the inguinal canal but protrudes through the abdominal walls at the external ring. The treatment is the same as for ordinary (inguinal) hernia.

Hernia,
Direct
Inguinal

Femoral Hernia is the protrusion of the bowel through the femoral canal, causing a swelling at the upper part of the thigh just below Poupart's ligament at the groin. Femoral hernias usually develop in women; they are much less common than inguinal hernias. Poupart's ligament is formed by the interweaving of the lower portions of the internal and external oblique muscles, and extends diagonally downward and forward in the groin. When these muscles and the neighboring tissues are firm and strong there is little possibility of a rupture at this point. The general exercises illustrated on pages 3648 to 3651 for treatment of inguinal hernia will be of value here, also. The exercises, of course, should be regulated according to the muscular strength of the individual.

Hernia,
Femoral

Femoral hernia usually can be reduced by lying upon the back, clasping the hands over the knee of the affected side, pulling the

thigh up firmly against the abdomen, and then across the abdomen. By these movements the loop of the intestine probably will slip back into the abdomen. A suitable truss should be worn in these cases. One should be careful to guard against strangulation.

Hernia,
Umbilical

Umbilical Hernia is a protrusion of the intestine at the umbilicus or navel. It is fairly common in the newly born, as the entrance of the umbilical cord renders this point a comparatively weak spot, even after the cord has dried up and dropped off. Still, a normally strong infant by violent crying may produce a rupture of this kind in the earlier weeks of its existence, although weaklings, of course, are much more susceptible. Constriction of the abdomen by tight belly-bands is a common cause of this form of hernia. The mechanical treatment of umbilical hernia is given under *Navel Diseases*. In umbilical hernia strangulation is rare, though when it does occur it is serious.

Umbilical hernia is occasionally found as a result of pregnancy in some large and fleshy women who have borne many children. In strong, normally developed women frequent pregnancies should not tend to produce a condition of this kind; but in those who are weak and whose muscles are flabby and undeveloped, frequent child-bearing has a great influence in increasing this general muscular laxity. Still, it is a fact that umbilical hernias seldom appear in adults except in those who have an over-supply of adipose tissue.

Hernia,
Umbilical,
Treatment

The *treatment* in such cases, in addition to the general building up of the tissues and the general treatment of hernia, should include a special routine for reducing. (See *Obesity*.) A fast would be of value, with plenty of exercise directed to the removal of superfluous flesh from the abdomen and the waist. A truss may be worn, also, as a protection. A rupture of this kind should be attended to as soon as possible, for the sooner it is reduced the easier the cure.

In most cases the methods referred to in the treatment of this condition in infants will be effective also in adults, combined with exercise and a general strengthening routine. The exercises recommended for inguinal and femoral hernia are useful in umbilical hernia, but should be supplemented by exercises which involve the muscles of the waist and the upper gastric region. Lying upon the back and raising the head and shoulders, or, if strong enough, rising to a sitting position, meanwhile supporting the navel with the hand, even if a truss or other supporting mechanism is used, will be valuable in this connection. Twisting the body at the waist and bending backward and far forward while standing should be diligently practiced, but the hernia should be well protected with the hand, particularly during backward bending.

Hernia,
Ventral

Ventral Hernia occurs at some other part of the abdomen than those already described. It usually occurs in the median line of

the abdomen and most frequently between the navel and the lower end of the breast-bone. It sometimes is found in infants. (See *Rupture in Infancy*, under *Navel, Diseases of*.) The treatment is similar to that for umbilical hernia, involving mechanical support and exercise to strengthen the abdominal walls and thus tend to reduce the size of, or to close, the opening in the abdominal wall.

Laparotomies, or operations which require the opening of the abdominal cavity, are occasionally followed by hernia. Some authorities state that approximately ten per cent. of all abdominal operations are followed by some degree of rupture. These ruptures are difficult to cure because of intestinal adhesions which are likely to be formed and because of the severing and weakening of the muscles. For this reason they should be looked after as soon as discovered.

Congenital Hernia is considered under *Navel, Diseases of*.

An important consideration in all forms of rupture is attention to the bowel function. Besides being more or less a causative factor in the development of hernia, constipation will aggravate the condition to a considerable extent in existing cases. Straining at a stool is dangerous, so if a passage cannot be secured without straining, enemas are to be recommended. (See *Constipation* and its treatment.)

Treatment of Rupture. Inasmuch as the predisposing cause of rupture is weakness of the abdominal walls, the important factor in the treatment consists of exercise to strengthen and develop the muscles of this region, for as this is done the increase in the size of the muscles, ligaments and other tissues will close up the opening which permits of the protrusion. The exercise also will indirectly strengthen all the other tissues of this region, besides improving the functional tone of the internal organs and the circulation and nutrition in general. Surgery is extensively used in remedying hernia, with good results in some cases. Briefly told, the operation consists in sewing together the edges of the opening after the protruding part has been returned to its normal position. While the operation in most cases has a satisfactory effect, it does not always bring about a permanent cure and worse ruptures often result.

Care must be used in taking up exercise in connection with a cure, lest its strain aggravate the condition. The hernia for which exercise is taken should be a reducible one, that is, it should be capable of being replaced or pushed back. Some hernias are bound down by adhesions and cannot be put back.

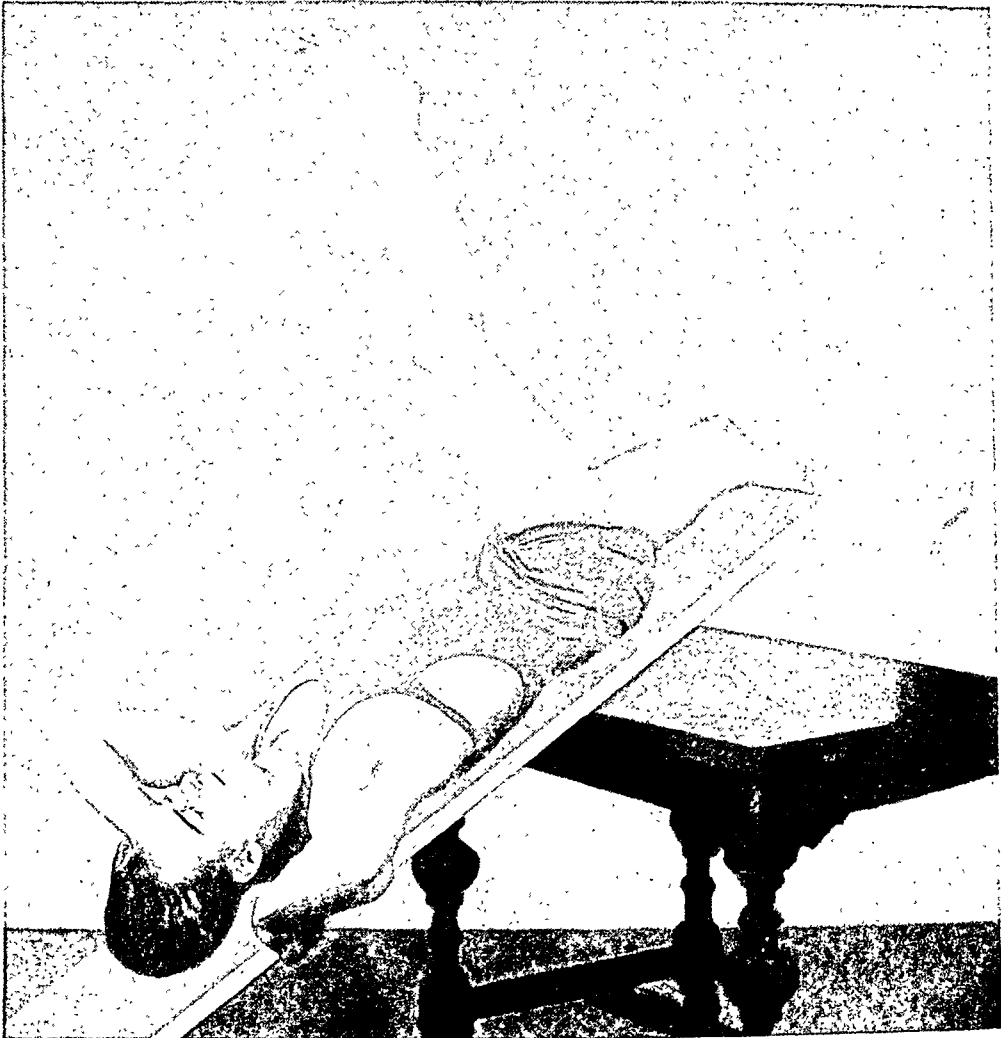
Very mild exercises should be taken in the beginning, these being gradually made more vigorous as the patient gains in strength. It is highly important that a well-fitting truss be used to keep the rupture in place while the strength-building processes of the treat-

Rupture or
Hernia,
Treatment

Rupture or
Hernia, Ex-
ercise in

ment are going on. This protection by the truss often is especially important while taking exercise; but, if the patient is in doubt as to the adequacy of the truss, the hand may be used to help support the part or to hold the truss securely in position. However, better results sometimes are secured if the truss is removed during the special exercises and the hernia held in position by the hand. This allows better action of the muscle fibers about the margin of the hernia. When the opening seems to close up the truss may be discarded, but always should be used when vigorous straining exertion is undertaken or until the cure is complete.

Practically all exercises which affect the abdominal muscles may be used. After reaching the development and strength of an athlete and after the entire abdomen is strengthened by a powerful



Lie on steeply sloping board, clasping its sides firmly to support the body. Extend the right leg in upright position, and then swing the leg over to the left and return as far to the right as possible. Repeat the exercise, alternating right and left legs until tired.

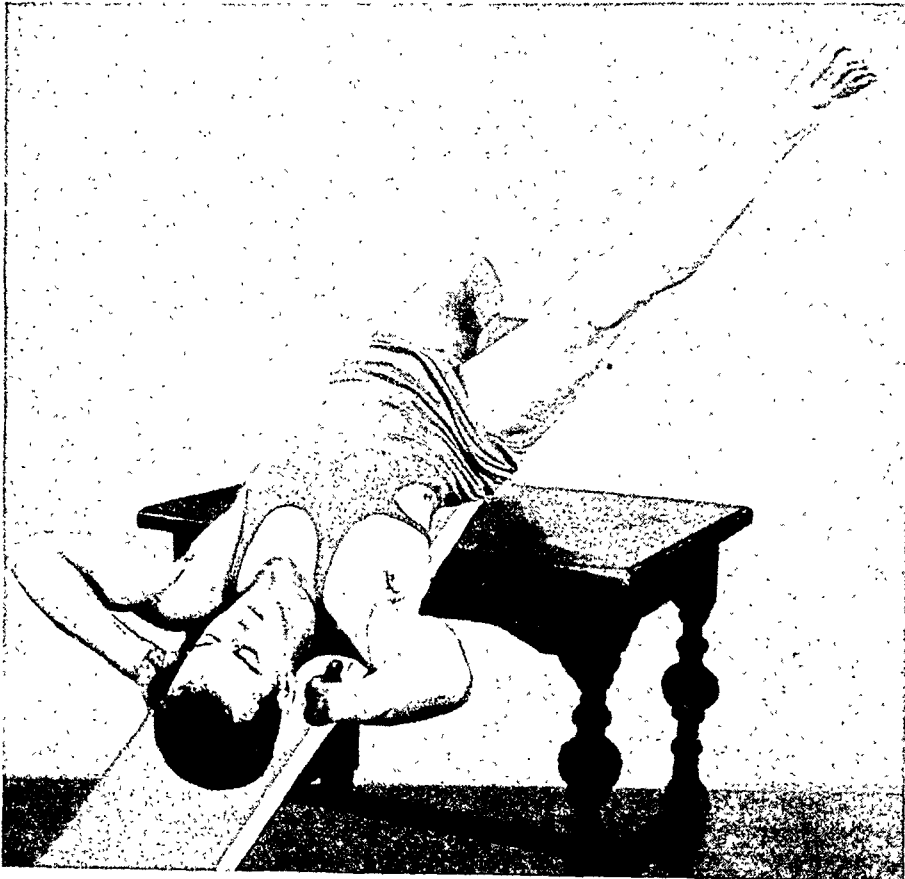
and well-knit muscular wall, one can feel that he will be protected against further lesions of this nature.

Many exercises with the hips elevated above the head are especially valuable. The abdominal contents then fall toward the chest, thus taking pressure from the defective part.

In connection with the exercises, constitutional measures should be adopted. In many cases, the patient is not only muscularly undeveloped, but otherwise debilitated and undernourished; hence, improved nutrition is absolutely essential to a cure. A fast in the beginning of the treatment is of great value in bringing about rapid results. It should be accompanied by the use of enemas when needed. With this fast the abdominal contents are greatly reduced, thus lessening internal pressure, which is specially important in treating this trouble.

If the patient is in a very weak condition Alternating Fast No. 5 is to be chosen; but under ordinary circumstances Complete

Rupture or
Hernia,
Diet in



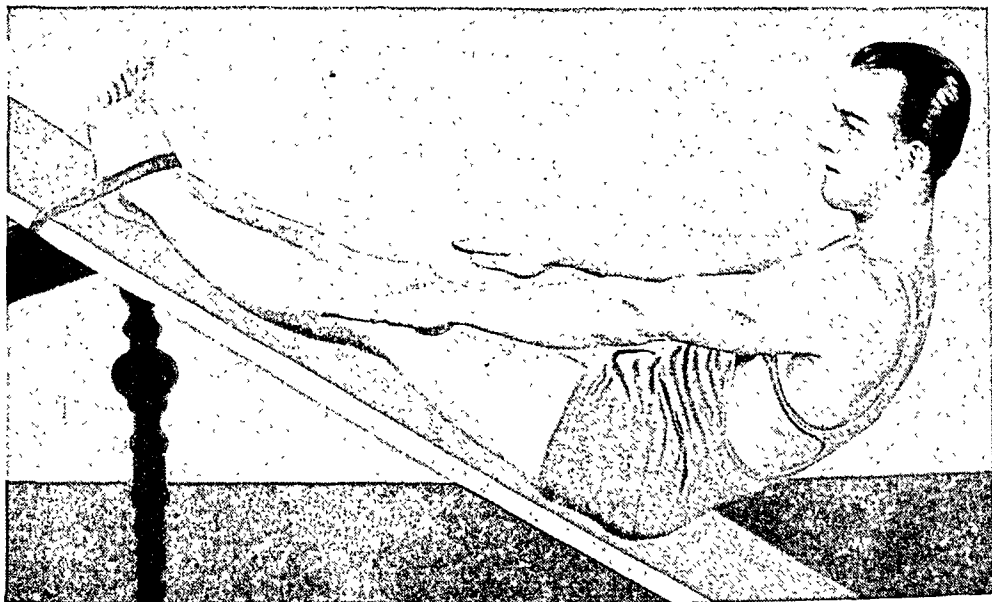
Recline on sloping board ("gravity board") as in preceding illustration. Elevate leg in same manner as in last exercise, then swing leg as far to the front and then as far upward over the body as possible. Repeat exercise until tired.

Fast No. 3 or No. 2, protracted for several days, is recommended. Following the fast Milk Diet No. 11 may be taken, or Combination Milk Diet No. 19 or 20, or Limited Diet No. 4, 9 or 10. Full milk diet should not be commended in rupture. The exercises should be taken in the morning at first, later morning and evening. Inasmuch as after the fast the tissues rapidly build up, the patient may experience a remarkable improvement from these special exercises. By the time he has reached normal weight following the fast he should be in a condition to take really energetic exercise.

It is especially important to maintain free activity of the bowels at all times, even if enemas are necessary. But on returning to the use of ordinary foods such activity should be accomplished through diet. Cereal Diet No. 1 will be found advantageous for this purpose. Simple combinations that do not generate pathological fermentation always should be used, for any considerable distention of the abdomen by gas may either prevent or retard correction, or make the tissues subject to separation again upon some sudden increase in intra-abdominal pressure.

Strangulation requires immediate treatment, so every possible effort should be made to "reduce" the rupture or, in other words, to return the intestine to its normal position promptly. Where the constriction is tight and there is muscular spasm, applications of hot cloths will serve to relax the tissues and relieve the spasm, also the pain. Full, fairly hot enemas should be given to relieve the colon of its contents as completely and as quickly as possible

Hernia
Strangulation



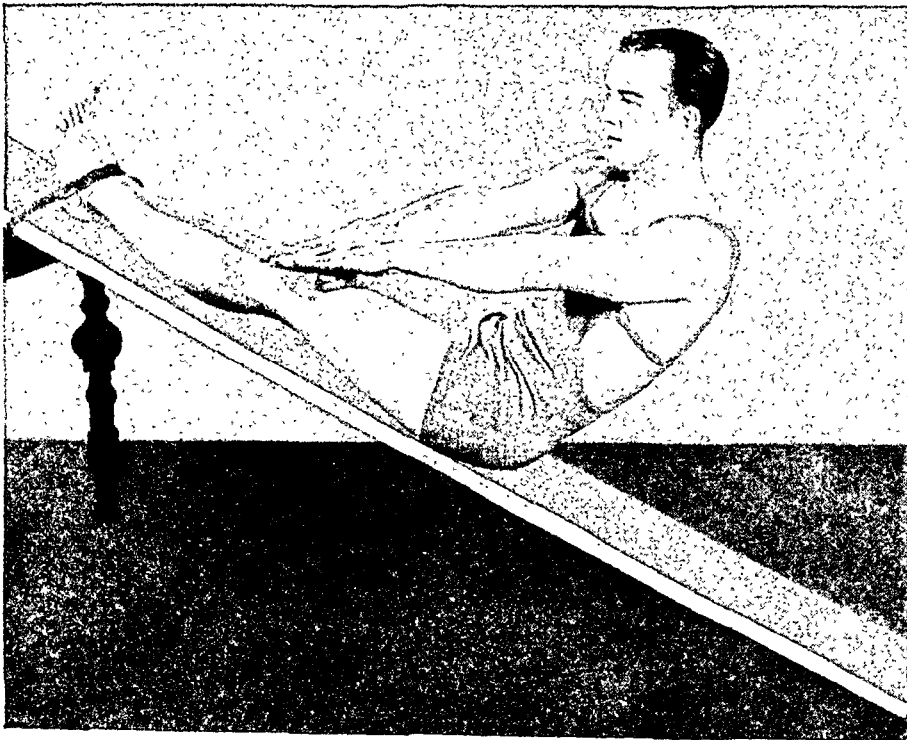
This exercise on the inclined board, with the feet fastened with a strong belt or other means, consists in bringing the body up from a prone position to a sitting position, as illustrated. The movement may be repeated until the muscles of the abdomen have obtained sufficient exercise. Over-exertion or strain is to be avoided.

and to bring about relaxation of the colon, with possibly spontaneous reduction of the hernia. No food should be eaten. If there is a tendency to vomiting it should be encouraged. In short, assistance should be given to the efforts of nature to empty the alimentary canal. Usually through fasting the danger of fatal results is greatly reduced; but strangulation should be relieved at once to avoid the possibility of gangrene. Skillful and experienced treatment will be required to overcome the strangulation, and experiments should be avoided. In extreme cases, as already suggested, operative measures may be necessary to save life, so should not be delayed too long.

In all cases of rupture in which reduction is desired the patient should lie on his back with his hips elevated above the level of the head. (See *Navel, Diseases of*.)

The procuring of a truss is an important matter, for it must be of a correct shape, must have a proper fit in order to be effectual and not do actual harm to the patient. A truss consists, usually, of a metal band which partly encircles the body, a pad to fit over

Use of Truss



From prone position on inclined board, bring body up to sitting position, turning to the left side, as illustrated. Resume prone position, then repeat same exercise turning to the right side. Repeat movements, turning alternately to left and right sides, until moderately tired. Distress or strain is to be avoided. The feet are to be fastened with a belt or other means, as illustrated, to permit raising the body in safety.

the hernial opening to prevent any protrusion and a waist strap to hold the apparatus in proper position. The waistband must be more or less flexible. In adjusting a truss it must be remembered that only sufficient pressure to keep the parts in position is to be made, for too much pressure interferes with the local circulation and may be detrimental to the various tissues in the region of the hernia.

In fitting a truss, one should move and bend the body in various directions after it is put on—stooping, bending backward, crossing the legs, spreading the feet far apart, coughing, etc.,—to make sure that the truss does not slip and that it feels comfortable. One should not buy a truss on his own judgment, but should go to a reliable surgical instrument house and be properly fitted by a competent person, or have the recommendation of and fitting by an experienced physician. Cheap trusses are not to be recommended; the best is none too good for a condition of this kind. A truss should be put on while the patient is in the recumbent position. The hernia should first be reduced and the truss then adjusted.

ST. VITUS'S DANCE (*Chorea*).—This is a common disease which affects the nerves and is found mainly in children. It occurs usually between the ages of five and fifteen years. About 70 per cent. of cases are to be found in females. Overwork in school often may predispose to the disease and sudden fright may assist in bringing it on. The affection is characterized by involuntary and irregular twitching of the muscles. In severe cases this muscular disturbance may affect most of the muscles of the body, when the eyes roll, the brow alternately furrows and relaxes, the face twitches and grimaces and the limbs are waved incoordinately and violently. But, as a rule only the mild form of the disease, evinced by facial distortion and twitching of the fingers and toes, is seen. The movements usually cease during sleep. The speech often is affected and becomes jerky. In some children there is great general debility and occasionally there are heart complications. There seems to be a close relationship between rheumatism and St. Vitus's dance, as this peculiar loss of muscular control occurs chiefly in young girls who already have shown a rheumatic tendency of greater or less degree.

Treatment. Little can be done directly for the amelioration of this disease. The treatment of value must be constitutional, designed to build up the entire nervous system. To accomplish this, radical purification and improvement in the quality of the blood are essential, embracing improved nutrition and vitality building. Sun-baths or sun-ray lamps are especially commended.

Some relief may be secured by hot spinal packs. These will tend to bring about relaxation of the tense and irritated nerves and

St. Vitus's
Dance

St. Vitus's
Dance, Treat-
ment

to invigorate the nervous system. Special Manual Treatments Nos. 1 to 10 or Nos. 11 to 16, depending on the strength, should be used in connection with or following the spinal packs mentioned.

Complete Fast No. 2 should be adopted for a period of at least two days. A fast-breaking routine adapted to the length of the fast should be used, after which Milk Diet No. 1 is advised. If this is too inconvenient or impractical, Milk and Fruit Diet No. 1, 2 or 3 is to be recommended. In some cases if the milk diet becomes too trying and the patient has practically normal weight, Combination Milk Diet No. 3 or No. 13 might be more acceptable. Cod liver oil can often be given with benefit.

The planning of suitable exercise may be a difficult matter in connection with this disease, but some exercise should be taken. No exercise that requires concentration and no complicated movements are to be given. However, there should be considerable complete relaxation, which should include nine or ten hours, or even more, of sleep. In all cases a life in the open air is imperative if one wishes satisfactory results, so walks of such length as the patient is able to take are to be insisted upon each and every day. When one reaches the point where he can walk several miles daily he will build up rapidly and experience a quick recovery.

Air-baths, dry friction baths and sun-baths or sun-light lamps will be of great value in facilitating recovery. They all have a marked influence in toning up the nervous system. The child should be kept from school and all study and for a time should be denied all reading. Warm or neutral baths at first, later graduated tonic baths, are best in most cases. In short, a general vitality-building routine suited to the condition of the patient should be adhered to faithfully. Precautions should be taken not to overtax the heart, as it invariably is affected in this disease.

SALIVATION (*Ptyalism*, *Sialorrhoea*).—An affection of the salivary glands characterized by an abnormal flow of saliva. This symptom brings about impairment of speech and general discomfort. The digestion often is affected, owing to the excess of saliva swallowed. The ailment sometimes results from mercurial poisoning, also from affections of the mouth and digestive tract.

Treatment. Where salivation results from mercurial poison, the treatment must be directed against this. Where, however, it is due to some ailment of the mouth or the digestive tract, or where the underlying cause cannot be traced, constitutional treatment will be necessary, special attention being paid to fasting.

Complete Fast No. 1 for two or six days, followed by Fasting Routine No. 2 for several days, is suggested. The period of the fast should depend upon the vitality and weight of the patient. Subsequent to the fast, the patient should adopt a general vitality-

St. Vitus's
Dance, Nat-
ural Living
in

Salivation

building routine. A strict milk diet (No. 1) usually will induce a quick recovery. If the patient is not much reduced in weight and has good assimilative powers, this diet is not necessary. In this case, after a fast-breaking routine adapted to the length of the fast has been followed, he may gradually return to the use of a general diet. It is necessary that he masticate thoroughly and avoid over-eating. He must build up strength and nervous vigor.

SALPINGITIS.—See *Fallopian Tubes, Inflammation of*.

SARCOMA.—A form of tumor. See *Tumors*.

Satyriasis

SATYRIASIS.—This is a condition characterized by an unusual and an uncontrollable sexual desire in the male. In women a similar condition is known as *Nymphomania*. It may be due to one or more of several causes, such as disease of the prostate gland, to inflammatory conditions of the generative system, or to certain diseases of the brain or the nervous system. In the latter cases it approaches almost a form of insanity.

Treatment. When the cause is local the treatment is to be directed to the affected part. But when it is caused by some abnormal condition of the brain or the spinal cord, a radical constitutional treatment for building up the general health and strengthening the nervous system will be necessary. Outdoor life, cold sitz-baths, change of scene, and appropriate exercises all are of importance. Hot spinal packs in conjunction with Special Manual Treatments Nos. 11 to 16 will be of value. In addition, a general health-building routine is to be followed. Freedom from all sexual excitement, of course, is imperative. (See the suggestions for vitality-building in the section on that subject; also *Mental and Psychic Healing*, Vol. VI, Sec. 7.) Circumcision may be necessary.

SCABIES.—See *Itch*.

SCALDS.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

SCALP.—See *Hair, Diseases of*; also *Dermatitis, Eczema, Erysipelas*, and *Psoriasis*.

Scarlet Fever

SCARLET FEVER (*Scarlatina*).—Scarlet fever, an acute, supposedly microbic, communicable disease which mostly attacks children of about five years, although no age is immune. It is considered spread by direct contact with a person suffering from it, or from contact with articles handled by such a person. Supposedly also it may be contracted from those who do not have the disease but who have been in contact with those who have it. When spread by direct contact it is considered usually to be through the secretions from the nose and the throat. Whether the scales from the peeling skin can carry the infection, is questionable.

To those who are toxemic the disease seems to be contagious, so it is well to observe antiseptic precautions and to isolate the

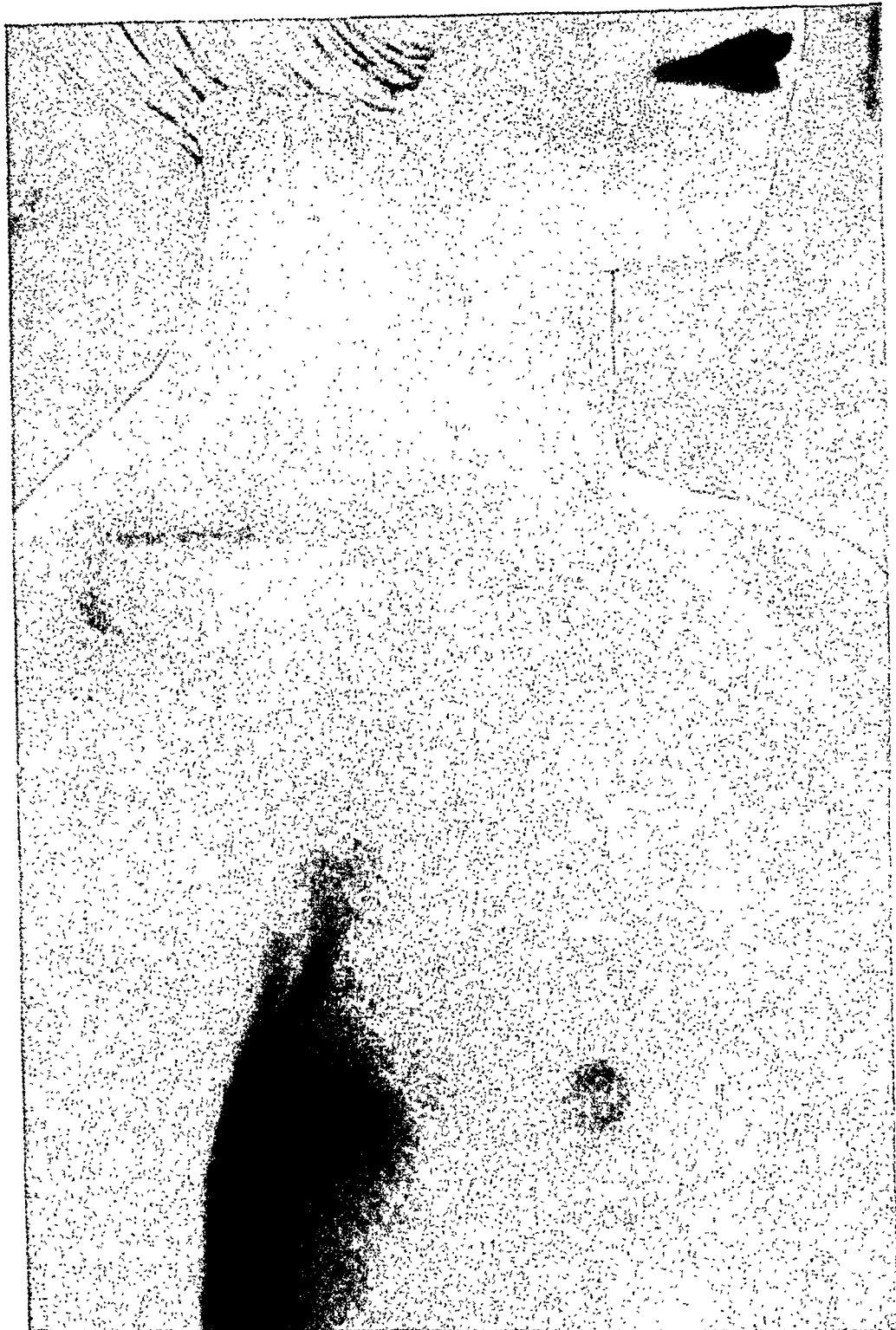


PLATE 106. In scarlet fever the eruption consists of a bright scarlet punctate rash over the body, but this is frequently absent from the forehead and from around the mouth.

patient until the peeling which follows the skin eruption has been completed. At the same time, those who are in charge of the patient should avoid fear of contraction of the disease. If they live properly and observe reasonable care they will be safe.

Symptoms. A period of incubation of five to seven days precedes the sudden onset. There are chilly feelings, rather than severe chills, and often in children convulsions and nosebleed. Usually vomiting comes in one or more spells. The throat then becomes sore, the temperature rapidly rises, the pulse is quickened and the skin is dry and drawn. The face is flushed, the tongue furred and constipation usually is present. Within 24 to 36 hours after the initial symptoms a rash appears upon the neck behind the ears and upon the upper part of the chest and spreads rapidly over the entire body; but is more pronounced on the neck, chest, back of the elbows and the inner aspect of the thighs. There is little if any rash upon the face, although sometimes it may be found on the upper part of the cheeks and at the point of the chin. The rash is a bright scarlet, punctate in character and composed of scattered fine red points distributed over a general erythematous condition of the skin.

Scarlet
Fever,
Symptoms

At the time of the appearance of the rash the general symptoms become more severe, the throat is more swollen, the temperature higher, the pulse more rapid and the tongue shows elevated villi on a red base (the so called *strawberry tongue*). The rash lasts about three days and then begins to fade out. Simultaneously the symptoms begin to decrease in severity. By the seventh or eighth day the rash entirely disappears. After the disappearance of the eruption desquamation, or peeling, begins. This occurs in the form of large scales or strips of epidermis.

Scarlet
Fever, Straw-
berry Tongue
in

In *malignant* scarlet fever the symptoms are severe, the patient is overpowered with the poison, with life endangered for one or two days. It is particularly fatal in young children.

In the *hemorrhagic* form there are hemorrhages into the skin and mucous membranes, nosebleed and bloody urine. This form is almost invariably fatal within two or three days.

In the *septic* form severe ulceration begins in the throat and spreads rapidly over the mucous surfaces. Sometimes the soft parts of the palate are entirely eaten away. The glands of the neck are enlarged, and there may be a general sepsis. The mortality is high; but many cases recover from this form, though convalescence is tedious.

Scarlet
Fever,
Forms

Many complications accompany scarlet fever and are likely to cause trouble following the illness. The most important among these are *acute Bright's disease*, which occasionally becomes chronic; *inflammation of the middle ear (Otitis media)*, with the occasional

Scarlet
Fever, Com-
plications

development of *mastoiditis*; *rheumatism*, with inflammation of the joints; *adenitis*, especially of the neck glands, which frequently undergo suppuration; *infectious nasal discharges*; *bronchitis*; and occasionally *diphtheria*.

The largest number of deaths from this disease is of children about three or four years of age. As the age increases from that point the mortality lessens, so the general mortality for all ages at the time of this writing is from three to five per cent.

As to the so called infectious nature of the fever, it should be remembered that few persons will acquire any communicable disease unless the blood is in a condition to act as a breeding place for such disease. The underlying cause of these acute communicable diseases is the same as that for practically all other diseases—a general toxemia.

It follows, then, that if children are properly fed, bathed and exercised and thus kept in a healthful condition, there is much less danger of their acquiring scarlet fever than when such common sense is not exercised. Nevertheless, it is important not to expose even the most healthy child unnecessarily to contagion. The mere appearance of health is not always to be relied on. Effete matters lurk in practically everybody, whether or not he or she gives signs of being sound and robust. The scarlet fever infection clings to wearing apparel, furniture, etc., for some time. Hence the warning just given.

Scarlet
Fever,
Treatment

Treatment. Prompt treatment is advisable so as to reduce the severity of the symptoms as much as possible. Complete Fast No. 3 should be started immediately at the first sign of trouble. The free drinking of hot water is important, as it increases all the eliminative functions of the body. This water may be flavored with lemon or orange juice, but must be unsweetened.

In the case of young children, oranges or lemons may be allowed if desired. If the fever becomes high, then cool water may be allowed if desired.

A full enema should be given daily for the first few days, after which the quantity of water used may be somewhat reduced. The patient should rest so long as there is fever, but the room should be well ventilated so plenty of fresh air will be secured.

A hot-blanket pack should be given on the first day, and cold wet-sheet packs daily thereafter, so long as the fever lasts. After the patient has perspired freely the pack should be removed from a portion of the body at a time, the part sponged with cool water, dried by gentle rubbing, and then dry covered before proceeding to the next part. If there is much itching of the skin a tepid sponge bath containing boric acid may be administered at some other time of day.

Once every two or three days a warm water and Castile soap bath may be given. Oil should not be put on the skin, as it clogs the pores. The skin is eliminating rapidly and must be kept clean; but care must be observed to keep the patient warm while giving the bath. In warm weather an air bath will be of benefit. If the throat is sore a cold neck pack may be applied every night before the patient goes to sleep. In addition, the nose and the throat may be treated with some mild alkaline antiseptic solution.

After the fever is gone the fast should be broken with a fast-breaking routine appropriate to its length. The acid fruits are especially beneficial at this time, likewise the concentrated alkaline juices of the 5, 10 and 15 per cent. carbohydrate foods. (See *Limited Carbohydrate Diets*, Vol. VII, Sec. 6.) After this, Milk Diet No. 3 should be adhered to during the period of convalescence. Enemas must be given daily so long as needed. Other hydriatric treatment may be discontinued, except for a daily cleansing bath. The vitality-building routine suited to the child's strength should be adopted after a day or two of freedom from acute symptoms, though walking may have to be limited or omitted until the period of quarantine is ended. (See also *Children, Diseases of*.)

Scarlet
Fever,
Diet in

The complications which so often make scarlet fever a dreaded disease should not develop when prompt treatment of the right kind is used. They may occur sometimes, however, if the patient is highly toxemic and much depleted in vitality. If they arise they should be treated in accordance with their nature. See *Complications*, also the headings covering the complications given above.

SCARLATINA.—The same as *Scarlet Fever*, which see.

SCIATICA.—This term is applied to almost any sort of a pain which occurs along the line of the sciatic nerve. It is most often used to indicate a neuritis of this nerve. Acute sciatica is practically always a neuritis. However, both acute and chronic cases may result from neuralgia, rheumatism, gout, unusual exposure to cold and wet, compression of the nerve from spinal or hip subluxations, severe constipation, a tumor in the pelvis, etc.

Except in those cases due to spinal and hip subluxations, sometimes even in these, the fundamental causes of sciatica are always toxemia combined with enervation, both due to wrong habits of living. The toxemia either irritates or produces an inflammation of the nerves and the enervation makes the nerve susceptible. General right habits of living with special attention to diet and exercise, but with care not to overdo, will prevent sciatica.

Symptoms. The characteristic symptom is that of steady or shooting pains from the hip down the back of the thigh to the knee, thence often on the outside of the leg to the ankle. The pain is intermittent, but occasionally the attack is so acute in character

Sciatica,
Symptoms

and so obstinate in nature that apparently the only palliative lies in the use of some opiate, such as morphine. This is especially the case when the exciting cause of the nerve derangement is dry and hardened bowel accumulations or a tumorous growth. In addition to local and constitutional measures it is important, in order to shorten the duration of the affection, that the patient should relax the nerve and muscle tension by placing a pillow under the knee-joint when resting. In addition to pain, which often is extremely severe, there is much tenderness on pressure over the nerve, and in long continued cases there is wasting of the muscles of the affected leg. Often the affection is obstinate in yielding to treatment.

Sciatica,
Treatment

Treatment. In a mild attack which permits the patient to be up and about a hot sitz-bath will be of the greatest possible value in giving relief from the acute pain and also in improving the local circulation. However, where the pain is extremely severe and it is necessary for the patient to be in bed, hot hip packs should be used instead. Prolonged neutral baths are usually better. Fomentations are of much value, but should be changed frequently and continued each treatment for thirty minutes or more. Infra-red or incandescent lamp irradiation will be particularly beneficial. Vacuum therapy (dry cupping), hot-air baking, and galvanic and static electricity all are sometimes recommended.

The important treatment in cases of this kind should have to do with both the building of vitality and purification of the blood. Activity of the bowels is one of the first considerations. To accomplish this hot enemas may be used daily if needed. They will tend also to relieve the pain. In some cases, if there is irritation due to the presence of hardened accumulations, this measure will be highly effective. Colonic irrigations are likewise highly valuable in this disorder.

Sciatica,
Fasting for

In practically all cases fasting is essential, to be continued until the severe acute symptoms subside, and for full duration according to the strength of the patient. Complete Fast No. 3 is recommended because of the value of the free water drinking. It will be best if the patient can drink water hot. The water should never be ice-cold, even when the patient desires it, for this will prevent drinking large enough quantities.

The fast should be broken at the first sign of extreme weakness. Then a milk diet is recommended as a means of rebuilding vitality and hastening the cure. Milk Diet No. 1 is to be preferred. If the patient has good assimilative powers, or is above normal weight, then Limited Diet No. 2, 5 or 9 may be used for a time. It is important that one should eat only what is absolutely necessary to keep up strength and vitality, though one should not err on the

side of deficient nutrition. So long as an attack lasts it will be necessary to rest as desired, at least of the affected parts, in order to relieve the excruciating pain and prevent further irritation. A daily hot spinal pack will be of advantage, so if Special Manual Treatments Nos. 1 to 10 can be applied without disturbing the seat of the pain too much or causing irritation, then it may be recommended. The comfort of the patient, however, should be the keynote in all treatment.

Specific spinal manipulation, as by osteopathy, naprapathy or chiropractic, may be useful in many cases to correct some spinal condition responsible for the affliction. Stretching exercises involving the affected extremity and nerve sometimes help in more or less chronic cases.

Sciatica,
Manipulations for

It is important that a perfect supply of pure air be furnished the patient. In most cases a hot-water bottle placed upon the bed, adjacent to the painful region, will be of great advantage in relieving pain and promoting that active local circulation which is essential in restoring the nutrition and tone of the affected tissues.

SCLERITIS.—Inflammation of the sclerotic coat of the eye. (See *Eye, Diseases of*.)

SCLERODERMA (see also *Fish-skin Disease*).—This is a diseased condition of the skin characterized by hardening and stiffening of this tissue. If proper constitutional measures are not adopted it may result seriously. It may be circumscribed, in which case the neck, face or forearms, chest or lower extremities are usually affected, or it may be diffuse. The surface is either shiny or of a dull brown-red. Whitish areas alternate with pigmented spots. Owing to the skin being bound down too tightly there is interference with the movements of the underlying muscles. When the skin of the face is involved it gives to the face a stolid expression (stony-face).

Scleroderma

The disease is chronic in nature and involves the increase of all of the subcutaneous connective tissues, with diminished activity of the blood-vessels. The hardening may pass in time, atrophy of the skin taking its place, whereupon it becomes thin, shiny and tense.

Treatment. Improved circulation and more perfect functioning of the organs are essential in the treatment of this disease. General constitutional measures should be adopted for purifying the blood and building vitality. If the assimilation is poor, a short fast followed by the milk diet will be advantageous; but if not below normal weight a choice from Limited Diets Nos. 1 to 9 may be adopted for a time. Later an ample diet should be given, also cod-liver oil. Free water drinking will enhance every function.

Scleroderma, Treatment

Wet-sheet packs, or perhaps local applications of alternate hot and cold, may be recommended, also mud packs, steam and electric-

light cabinet baths, with vigorous rubbing with olive oil following. General massage is of benefit. Air-baths, sun-baths and dry friction baths are especially important. Galvanism sometimes is of value, also. Beyond these suggestions a general constitutional routine may be followed as in the case of other skin diseases. In some cases endocrine therapy is recommended, adrenal gland substance being the chief ingredient.

SCLEROSIS.—Hardening and thickening of tissue, usually the result of inflammation. Common forms are *Arteriosclerosis*, page 3158, Volume VII, and *Multiple (Cerebrospinal) Sclerosis*, page 3535.

SCOLIOSIS.—Lateral curvature of the spine. See under *Spine, Diseases of*.

SCOTOMA.—An impairment of vision, the result of mental and nervous debility or of an anemic condition. The ailment is characterized by sudden flashes of blinding light by which the sight for a short period is completely lost in the eye affected. These flashes are seen when the eyes are either open or closed. When both eyes are involved, temporary blindness results. (For *Treatment* see *Sight, Disturbances of*.)

SCROFULA.—A disease of blood and lymph, the ravages of which generally affect the skin and bones but often extend to mucous membranes, glands, eyes, ears, and nose. As a matter of fact, the name scrofula is little used today, cases that formerly would have been called scrofulous being now considered as in all probability tuberculous in nature. While the condition may affect persons of all ages, it is most common in children. It seems to be a predisposition in those persons suffering from catarrhal discharges, enlarged tonsils, adenoids, bad teeth (this especially in adults) and communicable diseases.

Scrofula, Symptoms Its principal *symptoms* are a dry and harsh condition of the skin (especially of face and neck), which peels and scales in small and powdery flakes; swelling of the glands around the neck and the jaw, under the arms and in the groin. These swellings at first are hard and painless, often reaching the size of a small egg; they finally soften and suppurate, when a discharge of pus and thickened lymph follows. Often the discharge lasts for months, the size of the fissure slowly increasing. After healing a disfiguring scar remains.

Catarrh of the nose and eyes often is present, and as this condition dries scabs form within the nasal passages and the eye corners. The internal and the middle ear and the eyes also may become affected, thus causing impairment of hearing and vision. Finally the disease may affect the bones and the joints, and inflammations follow, with discharges of pus.

Children reveal a tendency to scrofula by their pale, anemic

and wizened appearance, red and swollen eyelids and sores on the lips and within the nostrils.

Scrofula, under its modern title of *tubercular adenitis*, is termed by some authorities a disease of the tissues, by others a disease of the blood. Its poison accumulates in the life-stream and from thence directs its attacks on the bones, glands, skin and membranes of the body. Its symptoms may be noted in the legs, feet, hands, arms or in the neck. On the European side of the Atlantic the disease was once called King's Evil, a tradition obtaining that it might be cured by the touch of a monarch. The disease involves the existence of a blood poison and, therefore, calls for constitutional methods of treatment.

Treatment. The fact that the disease is accompanied by an eruption and swelling of the glands indicates that the body is making efforts to throw off the poison present within it. This is the clue to the treatment, so we cannot do better than faithfully follow the hint that Nature thus gives us.

Scrofula,
Treatment

Everything must be done to secure increased activity of the excretory organs. A full enema once a day may be used to advantage if needed. Special attention must be paid to the diet. No salt meats of any kind must be used; indeed, flesh foods should be avoided or reduced in quantity. Fruits and vegetables should form the basis of the meals. Cereals may be used, but not to the extent of the edibles just mentioned. Only whole grain cereals are permissible. When the disease is especially serious, a fast of two to seven days should precede all other treatment. If the patient—child or adult—cannot fast entirely, then let him follow Partial Fasting Routine No. 1 or 4. If the fast is followed by full Milk Diet No. 1, taking an hour neutral bath daily before retiring, the symptoms should rapidly disappear. This could be changed when the symptoms improve, by taking Milk and Fruit Diet No. 2, taking three meals daily of whatever fruit is most desired and drinking milk therewith.

In order to secure thorough activity of the skin, a dry friction bath should be taken daily. It would be well to follow this with a cold bath, provided the patient reacts quickly with a feeling of warmth. If otherwise, the bath may be tepid. The patient should live outdoors as much as possible. If he is a child, he should be encouraged to play all kinds of active games. Exercise is of the utmost value in building up the necessary vitality. Nude sunbaths, graduated as to area exposed and in duration, should be taken three or more times a week. As a substitute, ultra-violet ray or carbon-arc sun-lamp therapy may be used. The free use of water is recommended. This malady almost invariably makes its presence known at birth or in early life and unless properly treated

Scrofula,
Skin Care in

continues through life. If the afflicted one is given the treatment that builds strong muscles and develops a healthy, vigorous body, the disease should disappear and the child should grow to normal manhood or womanhood.

SCROTUM, DISEASES OF.—See *Hematocele*, *Hydrocele*, *Rupture*, and *Varicocele*.

Scurvy

SCURVY (*Scorbutus*).—A disease due to insufficiency of mineral salts in the blood and a lack of vitamins, especially vitamin C, contained chiefly in citrous fruits, green vegetables and fresh milk.

The *symptoms* are inflammation of and bleeding from the mucous membrane of the mouth; the teeth loosen and the breath is malodorous. There are hemorrhages into the skin, mucous membranes and subcutaneous tissues; anemia also is present and frequently there is albumin in the urine. The skin becomes dry and livid or purplish in spots. Digestion is impaired and constipation invariably is present.

In former days before refrigeration, when the length of a sea voyage necessitated a monotonous and dry diet in which fruit and vegetables were a negligible quantity and in which many of the articles consumed were preserved in salt, scurvy was of common occurrence among sailors. But with cold storage facilities and greater variation in diet it now is comparatively rare.

Scurvy,
Treatment

Treatment. Inasmuch as this disease is the result of defective nutrition the treatment consists in the adoption of a satisfactory diet and the restoration of normal digestion. A cure can be effected by adding to the diet the nutritives that the body requires. In many cases a cure by such a method is a surprisingly rapid process. In order to obtain most rapid results in most cases, however, it is best to adopt a general routine for the accurate chemical balancing and purification of the blood. A fruit diet is recommended until the acute symptoms have disappeared and the alimentary canal is cleansed of all impurities. Oranges, lemons, grapefruit, limes, pineapple and tomatoes are the most helpful fruits to use. No sugar is to be used with them.

Owing to the fact that constipation invariably accompanies this disease, the enema must be used daily at the beginning of the fruit diet and subsequently as often as necessary.

Scurvy,
Diet in

The fruit diet is to be broken by a fast-breaking routine adapted to the length of the former and after that an exclusive milk diet should be followed until the patient has regained all the weight lost or until his weight has become normal. If only pasteurized milk is obtainable several oranges should be used daily with it. Milk Diet No. 1 is recommended in this connection, though if this is not possible, Milk Diet No. 11 may be used instead.

After normal weight has been regained and the patient returns

to ordinary foods, special attention must be given to fruits, salads and vegetables. Salad Diets Nos. 1 and 2 may be followed for a week, one diet being adhered to for a given day. Thereafter, a large percentage of undevitaminized, uncooked foods will be of advantage, Fruit and Nut Diet No. 1 is to be highly recommended and Cereal Diets Nos. 1, 2 and 3 may be used for a time if desired.

As in all other diseases whose cure depends upon improved nutrition, outdoor life and active exercise must be insisted upon. Such exercise induces a vigorous appetite and stimulates the metabolic processes, or, in other words, the cell activity involved in the rebuilding of the body tissues. Other measures of a constitutional nature will be of advantage, including air-baths, sun-baths, friction baths and deep breathing exercises.

SCURVY IN INFANCY (*Infantile Scurvy, Infantile Scorbutus*).—This is identical with scurvy in adult life, but occurs chiefly in infancy. Although scurvy and rickets are often associated, there is no necessary connection between them, except that similar causes may produce them.

Scurvy in Infancy

Symptoms. Anemia, irritability and loss of appetite may occur as warning symptoms; but the first characteristic symptom is pain in the extremities, chiefly the legs. This may come on so suddenly as to lead to the belief that the child has had an accident and suffered injury. Pain and tenderness during passive movement progress from intermittent to constant, the legs being held as if paralyzed and the child screams during the slightest movement of them. Sometimes the pain affects only the arms. At about this time the gums become a deep bluish-purple, swollen and spongy, especially about the front upper teeth. The teeth may even be covered with the gums. The shafts of the long bones swell, also the soft tissues over them. Hemorrhages occur into the skin and mucous membranes and sometimes from the kidneys. General wasting develops. Rickets is a complication in fifty per cent. of the cases and bronchopneumonia and gastroenteritis are fairly common complications.

Causes. The main cause is prolonged abnormal diet, in which certain elements are missing, perhaps chiefly Vitamin C. The feeding of proprietary foods, boiled milk, demineralized cereals or their broths and absence of fruit juices lead to the development of this disease. Of course, there usually is an individual predisposition, for some children fed in this way do not develop scurvy. The disease runs a chronic course, often progressive in nature, so unless proper treatment is instituted death is practically certain in severe cases, though cure under proper treatment is remarkably rapid.

Scurvy in Infancy, Causes

Treatment. Proprietary and devitalized foods must be abandoned, and raw milk employed if at all possible. However, if pas-

teurized milk is used there will be rapid favorable progress if orange juice, grape juice, tomato juice, or other fruit juice be given. In the case of a young infant, it may be necessary for a short time to make no change in a diet that apparently agrees with the digestion, but to bring about the correction of the scurvy by the addition of one or more of the fruit juices to the diet. Raw meat juice often is prescribed; but it cannot compare with fruit juices as a corrective of the trouble, nor with vegetable juices, which also may be used, preferably raw.

In case fruit juices are given without benefit, the cause of the failure is a deficient quantity of the juices. The juice of one-half orange should be given daily from the start, divided in suitable doses and diluted with water; but fairly rapidly the quantity should be increased up to one orange, or even more, and gradually the amount of water may be reduced so that in time straight orange juice is given.

Older children should be given fresh vegetables, also baked potato and lemon juice (but not potato and lemon juice together). Cod-liver oil and egg-yolk may be given also, to children of any age, except that nursing babies will not need the egg-yolks, and preferably should not be given this food. Of course, all the rules of health and hygiene should be followed, and the child should be given ample sunlight, though in pronounced cases much rest will be necessary to prevent damage to the bones and further lowering of the vitality.

Seasickness

SEASICKNESS (*Mal de Mer*).—A disorder of uncertain nature affecting people when taking a sea voyage, especially for the first time. It is characterized by persistent nausea, with or without vomiting, and it is due to the motion of the vessel, which produces various reflex nervous conditions. These disturbances are most likely to occur in persons who already have some digestive abnormality or who are suffering from eyestrain or nervous disorders. Here, as always, the presence of one abnormality indicating lowered vitality predisposes toward another.

Seasickness, Causes

Various explanations have been offered for the phenomena attending seasickness. Among the explanations commonly advanced are that the up and down movement of the ship produces an *unnatural motion of the internal ear fluids* which have much to do with maintaining the equilibrium; and that the eyes are affected by the constant watching of the bobbing up and down of the horizon and the waves, both these conditions producing dizziness, leading to nausea and vomiting. However, a person in normal health will not likely suffer greatly from seasickness—not only because the various functions of his body are working more perfectly, but because he more quickly adjusts himself to a new environment. Even

those who are not in the best of health generally do not seem to be troubled by seasickness after they have taken a number of voyages and thus accustomed themselves to the undulating motions.

Symptoms. The symptoms of this condition are nausea, with some vomiting, a peculiar sinking feeling at the pit of the stomach, headache, coldness and greenish pallor of the face, coldness of the extremities, a clammy and moist skin and usually an abnormal drowsiness.

Treatment. Most persons are more interested in the prevention than in the treatment of seasickness. Unfortunately there is no absolutely certain preventive. The building up of the health by general right habits of living will be helpful, though it may not always be fully effective. Special attention should be given to the diet, to see that it contains plenty of laxative foods. Rich, greasy and highly concentrated foods, also an unusual quantity of liquor or iced beverages, should be avoided. The free use of citrous fruits, especially lemons and unsweetened grapefruit, for several days before sailing and also while on the voyage has proved helpful in many cases. Overeating must be carefully avoided while on board ship, and care should be observed to see that the bowels move frequently, employing enemas if necessary. Plenty of fresh air and exercise are essential. One should walk several hours daily. Try to avoid steadily watching the changing horizon or the waves for long periods at a time. Instead, one should center the vision mainly on near-by objects. A cold bath should be taken sometime during each day and deep breathing should be practiced frequently.

Some people have found suggestion alone to be fully effective in overcoming their tendency toward seasickness. Mental and physical relaxation should be practiced persistently. As one relaxes he should be in harmony with the motion of the ship instead of resisting it or dreading it. Think of the motion as pleasant. Mentally roll with the ship as a sailor rolls in his walk.

If it is known that the stomach is not in the best of condition it would be well to take an acid fruit diet, or at least a diet of nothing but fresh fruit and green vegetables, for several days before starting on a sea voyage. Eating should be resumed gradually, employing a diet mostly of fruits and vegetables, with moderate amounts of other natural foods, adding a few drops of lemon juice to everything one eats except starches and sugars (which should not be used in such a case anyway) is also valuable. Fats should be discarded altogether.

If seasickness does occur, Complete Fast No. 2 is indicated, employing enemas as necessary. The drinking water should be cool (not iced) and flavored with lemon juice. Vichy and other carbonated waters are usually better than plain water at such times.

Seasickness,
Treatment

Seasickness,
Fast and
Diet in

If a sweet taste seems to make one drink more liquid add a little honey to the drink. It is sometimes advisable to suck the juice of a lemon occasionally. Nausea may be considerably reduced by taking the recumbent position on deck, or where plenty of fresh air can be secured.

Some people attempt to prevent or control seasickness by the use of alcoholic liquors, or by the use of chewing gum. Both of these sometimes aggravate the tendency to this disturbance. When the appetite returns, eating should be resumed gradually, using mostly raw foods, such as fruits and vegetables, adding lemon juice in all cases, but not highly seasoned foods if cooked dishes are used. Exercise also should be resumed at this time, giving special attention to walking about the deck.

Seasickness often has affected one man to such an extent that taking a sea voyage assumed the aspect of an ordeal. Prior to making a recent trip across the ocean he followed a reasonably strict diet for a few days previous to sailing, but on the first day out he experienced the usual distress. Realizing that the general principles that he had worked out must be maintained rigidly, he spent several hours on deck daily in walking, covering from twelve to twenty miles.

For drinking purposes he used vichy and aerated waters, adding lemon juice to taste. Sugar in some cases makes the drink more palatable, but the lemon juice is the effective agent in remedying the symptoms of nausea. Encouraging the desire to drink freely of this combination, he was free from all symptoms of seasickness on the second day out.

On the return trip it was not necessary to follow such a strict routine, although the sea was now and then unusually rough—the waves at times being extremely high. He freely used the aerated drink described as before. Butter and fats of all kinds were tabooed and sweets of every sort were avoided. Unusual care was taken to avoid heavy meals, eating barely enough to satisfy definite hunger. He went to the dining room on this trip for nearly every meal, using lemon juice freely on practically everything he ate.

Few people will have to follow such a rigid routine, but these general principles are here presented with the belief that those who will adhere to a similar procedure can effectively free themselves of any tendency to this unpleasant complaint.

SEBACEOUS CYST.—See *Cyst*.

SEBORRHEA.—See *Dandruff*.

SEMINAL LOSSES (*Spermatorrhea*, *Nocturnal Emissions*).—A great deal of misunderstanding exists among the laity upon this subject, largely due to false and misleading literature disseminated by quacks. These dangerous pamphlets frighten young men into

Seminal
Losses,
Sperma-
torrhea

Spermatorrhea. This condition is the frequent though usually slight leakage of seminal fluid. The condition often is an unrecognized one on the part of the sufferer. Usually it is due to the weakness of the glands, nerves and muscles of the generative system. The condition is made manifest by the discharge from the urethra of viscid fluid consisting of a mixture of seminal fluid and mucus, causing a constant moistening of the meatus of the penis, or by the presence of spermatozoa in the urine, or perhaps by both of these conditions. The presence of this substance in the discharge or in the urine can be determined only by the microscope. Spermatorrhea is not as common as is generally believed by the general public, which often gets its information from the pamphlets of quacks or people uninformed.

A moist condition of the mouth of the urethra from viscid discharges more or less constant does not always mean spermatorrhea; it is just as likely, even more likely, to be the result of a catarrhal condition of the urethra or the bladder, or it may be the result of chronic congestion or slight inflammation of the prostate gland (*Prostatorrhea*). (See *Prostate Gland, Inflammation of*.)

Spermatozoa found in the urine likewise may be of no importance in some cases. They often are found in that fluid following sexual indulgence, or after nocturnal losses, or even after sexual excitement. However, if they are constantly or repeatedly found in the urine it probably would indicate a condition of spermatorrhea.

Spermatorrhea occasionally has followed some injury, brain or spinal cord affection, or disease of the prostate gland, seminal vesicles or ejaculatory ducts. Usually, however, the weakness of the nerves and muscles producing the condition is due to masturbation. The symptoms of spermatorrhea, in addition to the discharge, are general and marked debility, impaired digestion, mental depression, irritability, insomnia and neurasthenia.

Seminal
Losses,
Treatment

Treatment. As this weakness is due largely to an impairment of the nerves which control the sexual function, the treatment must be of a constitutional nature. There must be a radical improvement in the purity of the blood. Hence, exercises, air baths, dry friction baths, sun-baths and cold water baths, because of their cleansing and tonic influences, are particularly valuable. In addition to this, cold sitz-baths taken each night before retiring are of exceptional value by invigorating the generative system and improving the local circulation. In some cases, however, the reaction from the cold sitz-bath, occurring after retiring and perhaps while asleep, will bring such an increased circulation throughout the pelvis that an emission will result. In such cases it will be best to take the sitz-bath either two or three hours before retiring or in the morning.

Exercise is absolutely indispensable for building up the vigor required in a case of this kind. Long walks of even several hours daily, when gradually inured to such, are strongly commended. Outdoor life of all kinds is advised whenever possible; but in any case the muscular system must be actively employed in order to develop functional and vital energy. As has been shown in the discussion of the subject of exercise in Volume III, muscular weakness is absolutely incompatible with a high degree of health and nervous vigor. Consequently, the unfortunate who suffers from this disorder should strive to perfect his bodily development and acquire vigorous, virile manhood. Let him take pride in his body and strive to make it as powerful and beautiful as possible. Let him be satisfied with nothing less than physical perfection.

Seminal
Losses,
Exercises for

In most instances it is best to take special exercises in the morning, followed by a bath suited to the strength and reactive powers. In the beginning the patient may be able to react from no more than a sponge bath; but as he grows more vigorous he will enjoy a hot and cold shower or a cold plunge bath. He should take a long walk daily and practice deep breathing. As he gains in strength he should increase the distance of the walk, which should be taken in the morning; but if this is inconvenient, the evening will be satisfactory for these exercises.

Hot spinal packs stimulate and invigorate the nervous system. They may be taken in the morning, following general exercise. In connection therewith, Self-Applied Exercise Movements Nos. 1 to 6 may be adopted, varied with Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 and Hip and Spinal Manipulations Nos. 27 to 32. However, for developing nervous vigor and rugged manhood the exercises for the back and the spine given in Volume III are especially recommended. (See also Vol. VI, Sec. 3.)

By way of internally cleansing the body and building up vitality and strength, a more radical dietetic routine may be of advantage. Where the vitality is low and the weight greatly reduced a prolonged fast would be inadvisable. However, a fast of two or three days will be beneficial, after which a milk diet may be taken. In cases of extreme emaciation and debility a fast of one day may precede a milk diet, using Milk Diet No. 1 if possible, or, if the occupation prohibits, Milk Diet No. 11. In some cases a milk diet may temporarily increase the losses, but the vitality will be so greatly increased in time that this need not cause alarm. After regaining normal weight the patient will find a marked lessening of the frequency of these losses. While on the milk diet a neutral bath may be taken for a half to a full hour each evening before retiring, with exercises in the morning; after the milk diet, the neutral

Seminal
Losses, Fast
and Diet for

bath should be discontinued. Even while on the milk diet, after considerable increase in strength has been established, any desirable tonic bath may be taken in the morning, discontinuing the neutral tub bath.

There are rare instances in which the cold sitz-bath proves too stimulating and to have an irritating effect on the genitals of the patient. In such cases it should be discontinued. However, in most cases an increased vigor results from the bath, which helps to restore a normal condition. Where the cold sitz-bath brings about over-stimulation, a hot one may be taken before retiring. This will increase the circulation and bring about a more or less relaxed condition. However, a cold sitz, splash, or shower should be taken in the morning if the hot sitz is used at night. Cold packs applied to the upper spine before going to bed will have a tendency to reduce sexual excitement. In some cases the pack may be applied to both the upper spine and the back of the head. Reaction should be complete before retiring.

Activity of the bowels is an important matter. Even a moderate tendency towards constipation will have a harmful effect upon this disorder. (See treatment for *Constipation* if there is any tendency in this direction.)

Another important suggestion is to refrain from drinking for two or three hours before going to bed. Where a milk diet is being followed it will be well to end it for the day at least three hours before retiring, as the pressure of a full bladder upon the prostate gland and the seminal vesicles may bring about emissions during sleep.

The patient must assume a proper position during sleep. The best position is on the side, supported by the slightly flexed upper knee. Also, good results are obtained by raising the bedclothing over the center of the body and thus avoiding any irritation from that source. This can be accomplished by means of a large horse blanket safety-pin. A wire or a heavy twine should be fastened to the top and the foot of the bed. The safety-pin should be passed through all the covers, the pin being held up by wire or twine. By this means the body can be given a partial air-bath underneath the bedclothing. It is especially important to avoid too much covering or becoming overheated during the night.

The mental condition must be guarded; morbid and unwholesome thoughts often give rise to manifestations of the kind in question, so the patient should make it a point to think clean thoughts and, when not engaged in his usual occupations, to busy himself more or less with some form of healthful mental or physical activity. This is a far more important matter than may be supposed and one that calls for special emphasis. Remember that a cure

Seminal
Losses,
Sitz-Baths
for

Seminal
Losses,
Sleeping
Posture for

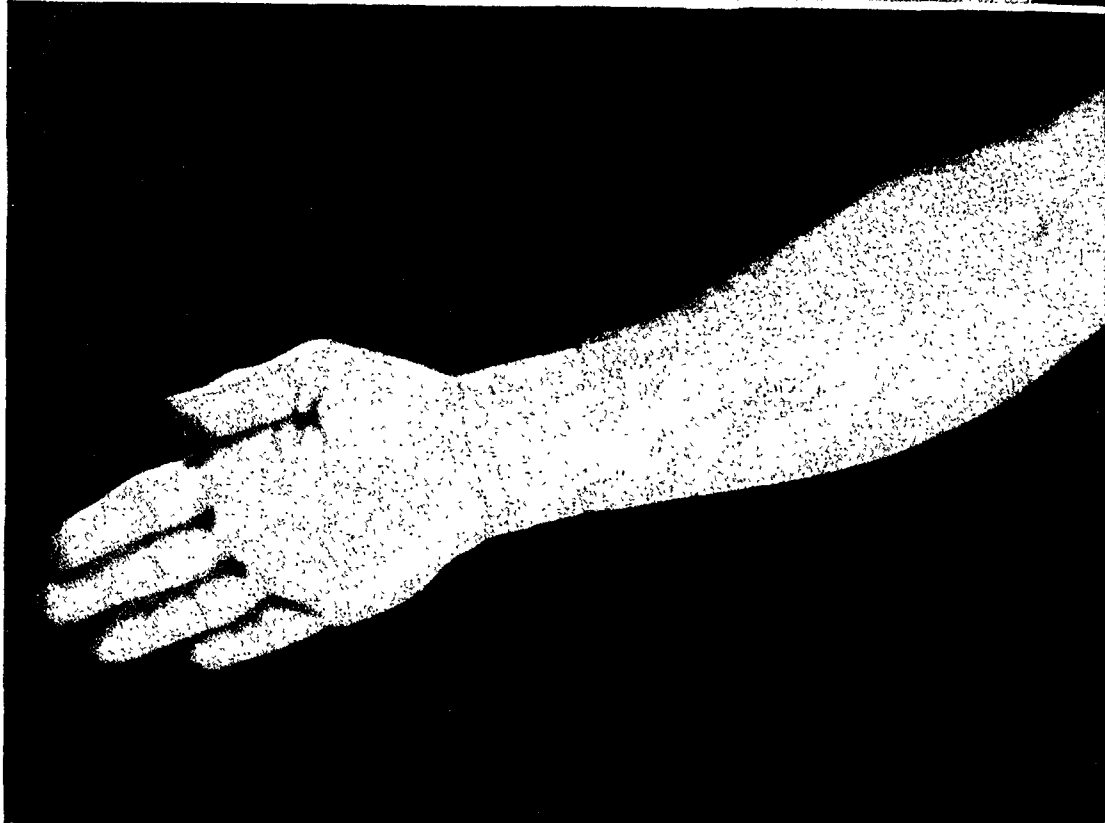
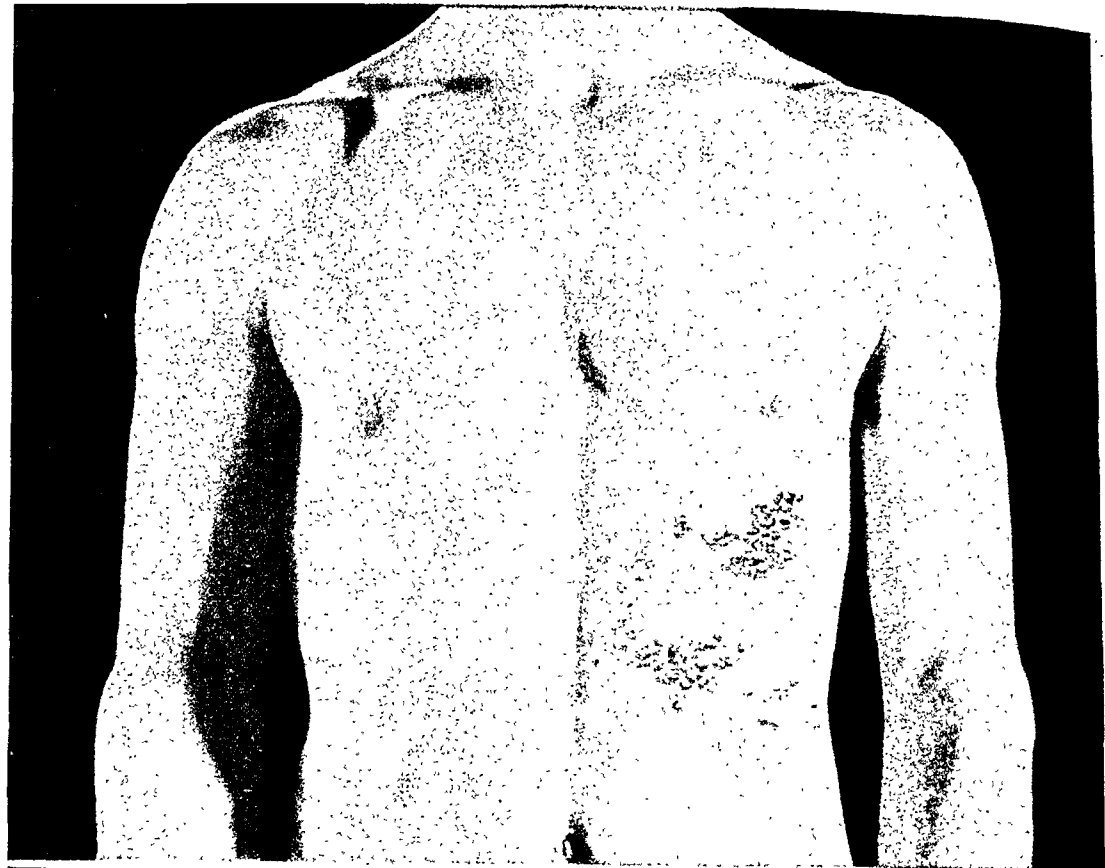


PLATE 107. Shingles, illustrated in upper figure, is caused by nerve conditions, the eruption consisting of vesicles, which afterward discharge. Ivy poisoning (illustrated in lower figure) is contracted from handling the poison-ivy plant.

of this disorder depends upon building up the nervous vigor and the physical powers, both as regards the muscles and the functions of the organism.

SEMINAL VESICLES, INFLAMMATION OF (*Seminal Vesiculitis*).—This condition usually is the result of gonorrhea. With it there practically always is an inflammation of the prostate gland. The symptoms resemble those of inflamed prostate, though when there is little real inflammation of the prostate the symptoms in general are less severe and there is less interference with the act of urination. The seminal vesicles, on account of their construction, often retain the infection of gonorrhea for long periods, even for years, long after all active inflammatory symptoms have disappeared. Therefore, it becomes especially important to lead an exemplary life after recovery from an attack of gonorrhea, living out of doors as much as possible, eating a wholesome but non-stimulating diet, and building up the body as much as possible. Treatment as suggested for *Prostate Gland, Inflammation of*, will be appropriate for practically all cases.

Seminal
Vesicles,
Inflamma-
tion of

SEMINURIA (*Spermaturia*).—The presence of seminal fluid in the urine. (See *Spermatorrhea* under *Seminal Losses*.)

SEPTEMIA (*Septicemia*).—See *Pyemia*, and *Blood Poisoning*

SEXUAL DESIRE, LACK OF.—This condition may be due to one or more of a great many causes. Clothing which compresses and cramps the vital organs may be one cause. Overeating, with accompanying auto-intoxication and nerve-deadening effects, is another. Many constitutional conditions, and also many excesses may be productive of this condition. Cold sitz-baths are beneficial as well as all methods to build up the general health and the nervous system. One in superb physical condition will not be afflicted with lack of the normal sexual desire. (See *Impotence* for more detailed treatment.)

Sexual
Desire,
Lack of

SHINGLES (*Herpes Zoster*).—An inflammatory skin eruption which occurs along the lines of the nerves and is accompanied by neuralgia. It is fundamentally due to a general toxemia which both irritates the nerves and makes extra elimination necessary. The long-continued use of arsenic often produces shingles, and is an excellent example of how the condition comes about. It does not matter whether the poison is specific, such as arsenic, or general, such as results from improper diet and other wrong habits of living; the reaction is the same. Unusual exposure and injury may also be exciting causes; but there is always the underlying toxemia and usually a neurotic temperament.

Shingles

Symptoms. Shingles may attack the abdomen, the neck, or the forehead, though usually the chest. The eruption generally appears on one side of the body only, the area involved first becoming

Shingles,
Symptoms

red and inflamed. Small blisters then arise, many of which grow to the size of a finger nail. Often they are grouped in clusters somewhat like a bunch of grapes. As a rule they dry by absorption and without external discharge. Crusts form over their sites, and when they fall off leave temporary scars. Neuralgic pains always precede the outbreak upon the skin. After the disappearance of the eruption the nerves continue to show signs of irritation for more or less lengthy periods. There is no truth in the old belief that death invariably results when the shingles meet in the middle from affection of both sides, though such a condition (rarely met with) is extreme and sometimes critical.

Shingles,
Treatment of

Treatment. Inasmuch as this disease is of nervous origin, efforts must be made to build up the nervous system on the lines indicated in neurasthenia and similar maladies. It must not be forgotten that weakness of the nerves is invariably due to impaired general function and an unsatisfactory blood supply. Alternate hot and cold applications to the affected part will stimulate local circulation. Inasmuch as the eruption usually follows the course of a cutaneous nerve, excellent results can be accomplished by stimulating the spine, which is the root or center of all spinal nerves. Special Manual Treatment Nos. 1 to 10 and Back and Shoulder Movements No. 1 to 16 therefore, are recommended, in connection with a hot spinal pack. The limited diets will be found of great aid here.

While granting that nervous irritation is the cause of this disorder, it would hardly bring about an eruption of shingles unless the blood was in an abnormal condition. Therefore, there must be purification of the blood-stream. In many cases a partial fasting routine should begin the treatment; but if the patient is in poor health, a fast of two or three to perhaps ten days will be more effective, depending upon the individual strength and weight. Thereafter Milk Diet No. 1 is recommended if the patient is thin and of low vitality; but where the assimilation is good and the weight nearly normal, a limited diet should be adopted, choosing from Limited Diets Nos. 1 to 8. Where this is done the patient should avoid eating any more than is necessary to keep up his strength.

Outdoor life, with long walks, air baths and sun baths and a proper amount of general exercise is essential. Galvanic, faradic and high frequency electric currents are beneficial in many cases, as are ultra-violet rays and radiant light and heat. A general vitality-building routine should be adopted. The patient should learn to relax physically and mentally and to banish worry, a frequent habit with those subject to shingles. Spinal manipulation often is excellent, or spinal massage following hot spinal compresses.

SHOCK.—See *Collapse*; also *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

SIALORRHEA.—See *Salivation*.

SICK HEADACHE.—See *Migraine*.

SIGHT, DISTURBANCES OF.—The powers of vision may be disturbed by and suffer serious injury from those diseases to which the eyes are liable. (See *Eye, Diseases of*.) But in addition to these pathological conditions, the eye is subject to various refractive disorders due to a gradual impairment of its structure, though no specific diseased condition may be present.

Sight, Dis-
turbances of

Far-sight or *Presbyopia* (Old-Age Sight) is the most common of all forms of sight disturbance. As a rule it appears about middle life, and is characterized by an inability to distinguish clearly nearby objects of small size, such as printed and written matter. This defect is due to loss of contractile power of those muscles upon which the eye depends for increasing the curvature of the lens for near vision.

Old-Age
Sight
(Pres-
byopia)

Far-sightedness or *Hypermetropia* (*Hyperopia*, *Long Sight*) is identical in its symptoms with old-age sight and is caused by parallel light rays from a distant point becoming focused behind the retina. This usually exists from birth.

Far-
Sightedness
(Hyper-
metropia)

Near-sightedness or *Myopia* is just the opposite of farsight. It is caused by parallel rays from distant objects becoming focused in front of the retina. Near objects, however, can be distinguished perfectly. The condition is congenital, but time aggravates it.

Near-Sight
(Myopia)

Astigmatism is a frequent accompaniment of near-sightedness. It is caused by irregularities of the curve of the surface of the cornea, resulting in a blurring of vision.

Astigmatism

Asthenopia is weakness of vision due to a failing of the visual nerves and muscles. The affection shows itself by an inability to use the eyes long without eye ache, pain in the forehead and "swimming" before the eyes.

Hemeralopia (*Day-Blindness*). Inability to see as clearly in a bright light as in a dim one.

Squint (*Strabismus*; *Cross-eye*). The inability to focus both eyes upon one object, with the result that the eyes appear to be looking in different directions; or, through paralysis of the ocular muscle the position of the eye or eyes becomes permanently faulty.

Squint
(Cross-Eye)

Squint may be caused by any of the diseases or disturbances to which the eyes are subject. Far-sightedness in its acute form often results in an inward squint (*convergent strabismus*), near-sightedness in an outward squint (*divergent strabismus*). When the eyes are weak from birth squint often develops, though infants usually seem to squint for the first several weeks of life, during the time they are developing accommodation.

Treatment. Oculists or eye specialists usually declare that the eye troubles whose symptoms have just been recited can be corrected by and only by the use of eye-glasses. In some cases they advise the use of "eye-drops" or other remedies in conjunction with the lenses.

These methods, in the majority of cases, are inefficient. Many disturbances of the sight can be cured by natural methods.

Eyes are capable of adapting themselves to individual requirements, just as the muscles of the body will develop in order to meet the demand upon them. But in both cases they must be supplied with pure blood necessary for them to perform their functions.

Therefore, if one is suffering from any defect of the eyes he may be sure that the eyes have not been given a due quantity and quality of blood. In other words, there is a local anemic condition due to blood insufficiently rich in those elements that permit the eyes to retain or develop strength and vitality. It follows that the treatment for these troubles must take the form of methods that cleanse, enrich and, if necessary, increase the blood supply. Hundreds who have suffered from eye troubles have at first adopted eye-glasses, and, later, natural methods of treatment. The glasses brought no relief, but in a great many cases aggravated the trouble. If one is overworking the eyes in any way such overwork must be stopped. The organs are capable of a definite amount of effort daily, the amount varying in different cases; so if one exceeds those limits the eyes will gradually grow weaker and weaker.

The first step must take the form of relieving the eyes from an excessive strain. Unfortunately, the exigencies of modern life often compel a too strenuous use of one's eyes. Circumstances may render it difficult to change this condition, yet the patient should remember that sight is the most important of all our special senses; that if it is badly impaired it may not be restored, and that every sacrifice should be made to prevent such impairment. When the defect is congenital, as in myopia, hypermetropia and especially astigmatism, glasses will relieve the strain. Also in presbyopia, which is due to a physiological change (old age), eye-glasses can help the vision, though in most cases a proper system of strengthening the eyes will make the use of glasses unnecessary.

Almost always it will be found, too, that the vocation which calls for this continued strain upon the eyes is one inimical to the general health. The body being thus brought to a condition where its vitality is below par, reacts upon, weakens and intensifies the defects to which the eyes are liable. It follows, then, that a constitutional treatment is the basis of a cure for these defects. Indeed, it is impossible fully to remedy the latter until the general muscular and vital vigor have been restored to normality.

The patient should follow Complete Fast No. 2 for two to five days, though if it be continued for a longer period it will hasten the up-building processes. If the fast seems unduly weakening it should be maintained for a short time only. Exclusive Milk Diet No. 1 or 2 should then be followed; but if it is difficult to do this, then use Milk Diet No. 11. At the end of a few days Milk and Fruit Diet No. 1 or 2 may replace the milk diet. Subsequently follow some wholesome diet of a general nature, be careful to avoid overeating, masticate thoroughly and, of course, avoid all intoxicating liquors and tobacco. Keep the bowels normally active.

The eyes should be given a morning and evening bath of moderately cold water in which ordinary salt has been dissolved, say a teaspoonful of salt to a goblet of water. Such a bath may be taken by filling an eye-cup to the brim with salt water, placing it over the closed eye, pressing it firmly while in that position, throwing back the head and then opening the eye. Or one may take a large bowl of water, dissolve a tablespoonful of salt therein, immerse the face, open the eyes and roll them in all directions so every part of the eyeballs will come in contact with the water. Continue the bath as long as the breath can be held and repeat two or three times.

Frequent relaxation by closing the eyes and covering with the palms, but not touching the lids, is important.

Some eye exercises which will help greatly to build strength of these organs are: Practice focusing without strain, after relaxation, on small near and small far objects, first forming a clear mental picture of the object to be discovered. Among others of benefit are vitolizing, general spinal movements, and punching the bag. Observe care not to overdo the eye exercises, however, and always avoid strain. (For other exercises see *Beauty and Personality*, Vol. V, Sec. 9.)

Eye massage may benefit in many cases. Other methods of stimulating circulation in and around the eye may be of some value. Vibratory massage by means of a mechanical vibrator, using a sponge-rubber applicator, may be used.

SINUSITIS (*Sinuitis*).—A sinus is an antrum or nearly closed cavity in a bone. As usually employed, this term refers to the cavities in the facial bones: the frontal, maxillary (in the cheek), ethmoidal and sphenoidal, these being called the nasal accessory sinuses because they all drain into the nasal cavity. They often are involved in various disorders, such as acute and chronic rhinitis (inflammation of the nasal mucous membrane), the various diseases of childhood and in influenza and other acute diseases.

Symptoms. The chief symptoms are pain and local tenderness and, in acute conditions of some gravity, some degree of fever. When the ethmoid and sphenoid sinuses (well back of the nose)

Sinusitis

are involved the symptoms are indefinite, though there is a persistent deep-seated headache centered "somewhere back of the eyes" as a rule, sometimes mainly posteriorly. There may be some dried mucus discharged from the nose or throat.

Sinusitis,
Treatment

Treatment. Constitutional treatment in the form of the complete routine outlined for Mastoiditis is satisfactory for sinusitis. None of the measures advised therein should be ignored, though as a rule heat will be better than cold and radiant heat is the best form. Radiations should continue for twenty or twenty-five minutes daily. It is beneficial to use general body irradiations also. Local quartz (ultra-violet) irradiation by a water-cooled mercury-arc lamp is excellent also, this being accomplished by means of a slender rod of quartz introduced directly through the nose to the sinus cavity, after first removing pus and mucus. In chronic sinusitis diathermia is of value, but low amperage and short applications (not over twenty minutes) should be used. Ozone inhalation likewise is of considerable benefit, especially in acute cases. Hot compresses of equal parts of water and lemon juice are of considerable value; and a cold compress of similar solution may be bound over the sinuses involved, covered with dry flannel and allowed to remain all night or for several hours.

Skin, Dis-
eases of

SKIN, DISEASES OF.—There are over a hundred well-defined diseases of the skin. Probably no other form of human ailment creates an equal amount of discomfort and irritation. Many of these so called diseases are symptoms of some serious disorder, such as a zymotic or infectious disease; or they may be due to the presence of a parasite; or again they may exist as an independent disease. (See *Dermatitis; Eczema; Erysipelas; Favus; Fish-skin Disease; Herpes; Itch; Lupus; Prickly Heat*, and *Shingles*.)

Blotches or pimples are the most prevalent of all ailments of the cuticle. They may appear on any part of the body, but as a rule the face, the neck, the chest and the back between the shoulders are chiefly affected. These pimples vary in size and exude a small collection of pus. They are especially common in males between the age of puberty and the time of complete physical development. Usually they are due to disorders of the digestive tract, combined with the heightened activity of the sex glands and other of the internal secretion glands and those of the skin—all the result of the transition from childhood to youth. (See *Acne*.)

Skin Dis-
eases, Treat-
ment

Treatment. A disease of the skin, except when due to parasites, is a manifestation of an unwholesome condition of the blood that can be overcome by eliminating the toxemia and by improving the circulation. The excretory organs, including the pores of the skin, must be stimulated. One of the most effective methods of bringing about this action of the pores is by the use of hot or cold

wet packs. These may be alternated, the cold being applied last. In case such a disease has brought about a hardened and rough condition of the skin the application of olive oil will be advantageous. Where the eruption is sudden or unusually severe the entire body should be swathed in a wet-sheet pack. In addition, air-baths and sun-baths will be productive of much benefit. Dry friction baths are to be recommended in nearly all types of this disease, except where they cause irritation, inflammation or general discomfort.

Steam baths are particularly valuable as a means of inducing copious perspiration and active elimination. In the absence of a steam cabinet bath any of the sweating procedures under *Water and Health* (Vol. VI, Sec. 2.) may be used. Electric-light baths also help. Sun-baths and sun-lamp baths are decidedly beneficial. Any of these treatments should be followed by a cold sponge bath or cold spray, shower or douche, but care must be taken that the body does not become chilled.

Skin Dis-
eases, Steam
Baths for

All forms of treatment for building up vitality and increasing all functions, including excretion, will prove beneficial; by the adoption of such treatment, the impurities of the blood will be eliminated naturally instead of by skin eruptions. A vitality-building routine should be adopted, special attention being given to walking and general exercise. Where the health is definitely imperfect and the disease is persistent, a fast should be inaugurated, to be followed by a milk diet. Complete Fast No. 3 is recommended, then Milk Diet No. 1, or, if this latter is not convenient, No. 11 may take its place.

Skin Dis-
eases,
General
Treatment

In a great many cases constipation (which see) is the cause of this class of maladies; it is necessary, therefore, to take steps to insure regular action of the bowels. The exercise and diets already suggested will help in this direction, but it may be well to use enemas and colonic irrigations also. When skin eruptions are due to parasites, strict cleanliness and antiseptic ointments will be required.

SLEEPING SICKNESS.—See under *Tropical Diseases*.

SLEEPLESSNESS (*Insomnia*).—Inability to sleep sufficiently to recuperate the energies is a symptom of nervous derangement and is rightly regarded as a grave warning, often being a precursor of complete nervous or mental collapse. For, though it is possible to forego one's proper allowance of sleep for a period extending over months and even years, the inevitable breaking point must arrive sooner or later if there is serious deficiency of sleep. However, many people sleep only a few hours at night, but because of the "depth" or soundness of their sleep, with complete relaxation, they derive more benefit than many others do from even more than what usually are considered normal amounts of sleep. Many people sleep much more than they think they do.

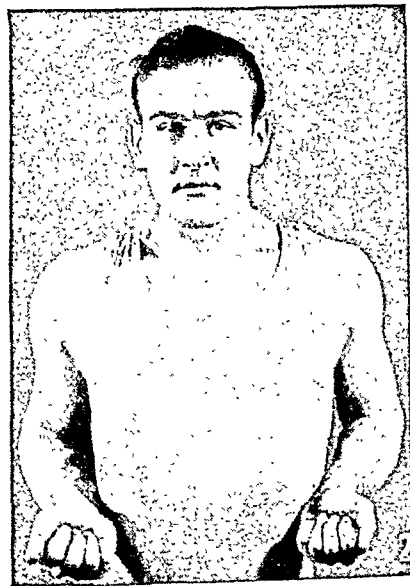
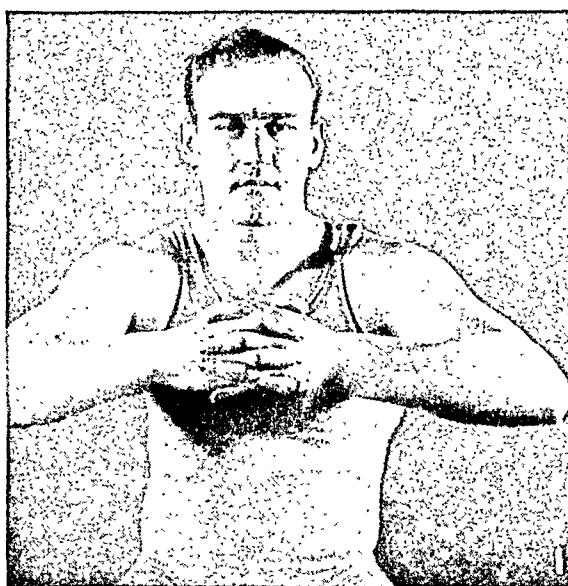
Sleepless-
ness

Sleep is as necessary as food and air. One of the characteristic symptoms of certain forms of insanity is the inability of the patient to obtain sleep. Insomnia is also indicative of abnormal mental or nervous conditions that arise from the high pressure of business or social life nowadays. This is saying nothing about those errors of diet, lack of exercise and the artificial recreations that are among the vicissitudes of modern civilization. Insomnia occurs in many of the general and organic diseases, such as pneumonia, cerebral conditions, delirium tremens, neurasthenia, some forms of kidney disease, and some heart conditions.

Though insomnia often proves intractable to ordinary treatment and many artificial aids have to be invoked to induce slumber, no other nervous disorder yields so readily to appropriate dietetic and constitutional measures.

Sleepless-
ness, Treat-
ment

Treatment. In attempting the cure of insomnia the cause of the trouble must be ascertained in order to suggest suitable treatment. From a physiological viewpoint, sleep is the result of the gradual withdrawal of blood from the brain. It follows, then, that sleeplessness (usually, at any rate) is due to the brain being supplied with an undue proportion of the vital fluid at a time when such normal supply should be at a minimum. The nervous tension to which allusion has just been made produces this condition and we have insomnia. There are mechanical as well as mental methods of overcoming such a condition. So far as the former is concerned



1. Interlocking the fingers and squeezing them tightly together. This and the next movement may prove helpful in cases of insomnia, also for nervousness and numerous pains.
2. Clinching the hands with the balls of the fingers pressed tightly into the heel of the hand.

the best and easiest method is to devote five or ten minutes to moderate exercises just prior to going to bed, giving special attention to such movements of the back and the neck as assist in inducing a free and regulated circulation. By these means the pressure of blood in the head may be lessened and at the same time a more relaxed condition of the nervous system created.

Sitting in bed, clasping the fingers underneath the knees and pulling vigorously, from fifty to one hundred times or until the muscles in the small of the back are thoroughly stretched and relaxed, often is an effective remedy. Sitting in bed and reaching steadily beyond the toes is a valuable movement having similar effect. Another exercise consists in relaxing the muscles of the neck, pulling the head forward, throwing it back and continuing the movement until the muscles of the back of the neck are thoroughly fatigued. Indeed, any of the movements that bring into action the muscles of the neck and the spine and produce increased breathing will insure good results. Lying either on the back or on the abdomen and contracting all the back muscles, as if endeavoring to telescope the spine, will be beneficial in nearly all cases, especially if followed immediately by the spine-stretching movements mentioned above. The following relaxing exercises are especially recommended by certain chiropractors: Head far back, chin in. Now allow the head to fall far to the right (keep chin in), then far to the left. Repeat forty to fifty times. From the same position allow the head to fall far backward the same number of times. From the same position allow the head to fall, turning first far to the right, then far to the left fifty or more times.

Another remedy is to wring a towel out of cold water and wrap it snugly around the neck. See to it that it fits closely at the back of the neck. Or use a girdle pack as follows: Wet a towel with cold water, fold it lengthwise until it is four to six inches wide, wring it out and pin it around the waist next to the skin. Place a dry towel over it. The soothing influence of this girdle usually is satisfactory. A cold shower or tub bath of four or five minutes' duration just before going to bed often induces sleep. In some instances a prolonged neutral bath will be more effective. A mild ultra-violet treatment is of aid, especially if followed by a cold shower.

Among various other worthwhile mechanical methods of banishing insomnia may be mentioned cold cloths to the head, the hot-water bottle to the abdomen or feet, the flowing cold foot-bath with friction, the ice-bag to head or heart, mechanical vibration of spine or lower extremities and infra-red irradiation of the spine; also massage or osteopathic or other spinal manipulation. (See Special Exercise Treatments, in Vol. VI, Sec. 3; also *Massage*, Vol. VII, Sec. 4.)

Sleepless-
ness, Exer-
cises for

Sleepless-
ness, Hydro-
therapy for

So far as mental methods are concerned, it is suggested that the patient, by an effort of substitution, divert his mind from the subject which disturbs his slumbers. Many people take their business worries or social perplexities to bed with them and sleeplessness follows. These disturbing bed-fellows must be gotten rid of and their place filled with thoughts of a pleasant and soothing nature. Concentrating the mind on some pleasant subject often is of value, but probably the best plan is to make the mind as nearly blank as possible. Pay no attention to any thoughts which may enter consciousness. Some may succeed better by concentrating on the word "nothing," or by visioning a high blank black wall.

Many people "fight" insomnia. If they but realize that fretting and fuming and counting sheep jumping over a rail, etc., merely serve to deepen the impression of wakefulness upon the subconscious mind, also that the full relaxation of the body and mind will refresh them greatly even if sleep does not come—in other words, if they adopt the don't-care attitude—they will find sleep coming to them much more readily.

It need hardly be said that opiates of any kind must be religiously avoided. They simply aggravate the condition and make the cure more difficult. It must not be forgotten that insomnia is actually due to an abnormal constitutional condition. Hence, besides the suggestions just made, constitutional treatment looking to the up-building of the physical strength and general vitality must be inaugurated and maintained.

In many cases, if the sleepless one will take sufficient exercise through the day to leave him muscularly tired at night he should have no trouble in sleeping. Long walks will solve the problem in some cases. A drink of hot water, or perhaps half a glass of warm milk, often will serve so effectually to draw the blood to the stomach and away from the head as to enable the sufferer to go to sleep almost immediately. In case of much mental excitement a hot foot-bath, combined with cold cloths applied to head and back of the neck, often will be effective. Pain, digestive disturbances and other troubles serving as causes must be given due attention. Often mild doses of ultra-violet light prove highly sedative.

SMALLPOX (*Variola*).—An acute eliminative crisis characterized by a pustular skin eruption. It is due to a combination of internal and external filth. Such violent symptoms would never develop if the body were not highly toxic. Smallpox is supposed to be due to a particular germ, but this has never been discovered. The disease does seem to be contagious, however, to those in a toxic condition, from whatever causes may exist. All ages are equally susceptible. It is very fatal in young children. The negro race apparently is especially susceptible. In the temperate zone it is more

prevalent in winter than in summer, probably because it is a disease bred in filth which during that season is more likely to be present, due to over-crowding, improper ventilation and general uncleanness among certain classes of people. Also the use of a heavier diet at that season causes a more intense toxemia than during warm weather.

The poison of smallpox is supposed to enter the body by way of the mucous membranes of the nose, throat and respiratory passages. It can be communicated by direct contact, by infected articles, or by persons who themselves do not have it. A person with smallpox can communicate the disease at any time from the beginning of the rash until the dropping off of the scales and the clearing up of the skin. The infectivity, however, is greatest during the pustular stage. The incubation period is about two weeks. Formerly epidemics of smallpox were frequent; but they now seldom occur, since sanitation has been improved and the general standards of living elevated.

Smallpox,
Infectivity

The credit for the decrease in smallpox has been given to vaccination; but since innumerable cases are on record of smallpox occurring after vaccination, and since thousands unvaccinated do not contract the disease, the claim that vaccination is a preventive is unsound. The vaccine is a definite poison to the body, as is proved by the symptoms which follow vaccination. Infecting the body with the active principle of a disease is not a rational method of preventing that disease.

Smallpox may be prevented by right habits of living; not by vaccination. The disease is not so terrible as it has been painted, so if one has allowed himself to get into a condition where he needs such an eliminative crisis he will be better off for having had it if the disease is properly treated. When there is this proper treatment the disease should never prove fatal; and if treatment is started promptly the symptoms may often be lightened considerably.

Symptoms. This disease begins with chills, high fever, frontal headache, vomiting, aching of the limbs, and backache (often severe). The temperature at the outset is about 103 degrees, the pulse rapid, the tongue furred, the breath offensive, and the throat often sore. There is restlessness and often insomnia and delirium. The breathing may be rapid, the skin dry, and there are constipation and severe prostration.

Smallpox,
Symptoms

The characteristic eruption appears on the second, third or fourth day. It is found first upon the forehead and the backs of the wrists and the hands, spreading rapidly to the face, trunk and arms and thence to the lower limbs, soles of the feet and the palms of the hands. In severe cases the eruption extends to the cavities of the nose and the mouth. In the course of a week the entire body is

covered. The eruption goes through several stages. At first it is composed of red spots or macules, not elevated; these soon become elevated and develop into papules, giving the feeling of hard round shot beneath the skin. About the sixth day these papules change into vesicles, containing a clear fluid which about the eighth day becomes pus. The tops of the pustules now become depressed, and about the tenth day break and the pus is discharged.

Smallpox,
Rash of

The rash may be of a *discrete* character, that is, the pustules may be entirely separated from each other, the skin between being more or less normal; or the rash may be *confluent*, that is, two or more pustules may run together, so that sometimes the skin in large areas is covered so closely that none of it can be seen between the pustules, being, however, swollen and congested.

In the *hemorrhagic* form hemorrhages occur into the skin and cutaneous tissues. The more severe the toxemia the greater the number of the pustules and the closer together they will be. *Varicoid* is a mild, modified form of the disease. The difference in form of the disease is due merely to a difference in toxemia of the patient and virulence of the disease itself.

Smallpox,
Treatment

During early formation of the pustules the fever decreases, but concurrently with accumulation of pus it again rises, remaining high until the pustules discharge their contents. After discharging, the pustules dry up and brownish crusts are formed. Several weeks later, often as long as five weeks, these drop off. The scars which often remain are usually proportionate in their disfigurement to the length of the time the crusts adhere to the skin, also to both size and depth of the pustules and their being subjected to scratching.

Treatment. The treatment of smallpox consists simply in assisting the body in its eliminating efforts. There is no reason to be afraid, as the body will take care of itself if given a chance. Smallpox is not a terrible destructive force, but a cleansing process. As many people are toxemic and hence more or less susceptible to communicable diseases, it is well to observe all proper sanitary precautions. The attendants of the patient should avoid fear of contracting the disease. Isolation of the patient and quarantine of the attendant is required by law for at least two weeks. The room selected for the patient should be well ventilated. Complete rest in bed will be required.

Smallpox,
Fasting for

At the first sign of the disease Complete Fast No. 3 is to be instituted, drinking plenty of hot or cold water as desired, and using a full hot enema each day. If the temperature goes high, however, or the patient becomes weak, the quantity and the temperature of the enema water may be correspondingly reduced. A cold wet-sheet pack, a neutral bath of a full hour, or a warm shower bath for two or more hours, or some means of inducing copious elimination

through sweating, etc., should be given daily. In a cold pack employ plenty of blankets and, if necessary, a hot-water bottle in order to produce free perspiration. A cold wet towel should be kept on the head while the patient is in the pack. Upon removal from the pack a quick cold sponge bath should be given.

If the temperature rises considerably the same day after a pack, an air-bath may be given. This may be continued as long as the patient feels comfortable, but should be stopped at the first sign of chilling. The length of the air-bath and the amount of covering required by the patient when not in this bath, will depend considerably upon the room temperature. Since the air-bath is valuable in other ways besides reducing the temperature, it should be employed whenever the circumstances permit.

No food is to be allowed until the acute symptoms have all subsided, except that possibly in the case of young children it might be permissible to give a little acid fruit juice if it is especially desired. When the temperature has been normal for at least 24 hours a fast-breaking routine appropriate to the length of the fast may be started, followed by Milk Diet No. 3, though it would be well to remain on three quarts of milk a day for several days (after reaching this quantity gradually) before increasing the quantity further. Enemas should be used every day. The cold wet-sheet packs also are to be continued for a week or ten days, though the frequency should be decreased to one every other day. If the patient has been considerably weakened, the pack may be limited to the abdominal area. A suitable vitality-building routine should be adopted a few days after beginning the milk diet. As soon as the quarantine permits, the patient should take long walks daily.

Smallpox,
Diet for

During the stage of the skin eruption he should make every effort to avoid scratching, as this causes pits and scars. The wet-sheet packs and air-baths will do much to relieve itching. Cloths wrung out of luke-warm milk may be applied to the parts especially irritated. Cool facial compresses of unsweetened grape juice will do much toward the prevention of pitting.

Attacks of smallpox seldom recur in the same patient, but this does not obviate the necessity for the most careful habits of living. Many other diseases may be acquired. However, the thorough cleansing which smallpox gives the body generally lasts the patient for some time, so if he is reasonably careful he should regain and maintain excellent health. (See also *Vaccination*.)

SMOKING.—See *Tobaccoism*.

SNAKE-BITE.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

SNEEZING.—Spasmodic and audible expulsion of the breath to remove mucus or foreign matter, common in colds and when ex-

Sneezing

posed to dust or irritating particles in the air. Sneezing in itself is a remedial measure, so treatment, if any, should assist in removal of waste matter or irritating dust. (See *Colds*; also *Zone Therapy* under *Miscellaneous Treatments and Health Factors*, Vol. VI, Sec. 7.

Snoring

SNORING.—Audible breathing, caused by vibration of the soft palate and the uvula. Assuming a more natural and comfortable position during sleep frequently will enable one to avoid it. Often it is necessary to reduce weight, or to adopt a suitable vitality-building routine to increase the health to a higher standard. Sometimes the practice of bringing the chin far forward, as advocated by vocal teachers in singing, for opening the throat and assuming a posture during sleep in which the chin can be so held, will be effective.

Snow-
Blindness

SNOW-BLINDNESS.—As its name implies, the ailment is induced by exposure of the eyes for a long period to a white glare such as is afforded by a field of sun-lit snow. It is due to an unusually large amount of ultra-violet rays, and though it also occurs on the plains, it is experienced chiefly among mountain climbers, as there are more ultra-violet rays and more snow in high altitudes than in low ones. Those who are unaccustomed to exposure are especially likely to be affected. The symptoms are redness and swelling of the eyelids, with a watery discharge; extreme pain, sensitiveness to light and a gradual loss of sight. An absence of fruit and vegetable salts in the blood predisposes to this affection.

Snow-
Blindness,
Treatment

Treatment. Dark amber glasses should be worn during future exposures as a preventive measure before the trouble has an opportunity to develop. Where there is pronounced inflammation a drop of castor oil in each eye two or three times a day will be soothing and healing. A boric-acid or common salt solution may be used, also, but not with such healing effect. One should be in comparative darkness during acute inflammation. The diet should be rich in Vitamin A.

Somnam-
bulism

SOFTENING OF THE BRAIN (*Paresis*).—See *Brain, Diseases of*.

SOMNAMBULISM (*Sleep-walking*).—This is a condition of walking or other activities while in a state of half-sleep in which the senses are but partially suspended. The term is applied also to that phase of hypnotic sleep in which the subject has possession of his senses but his will and consciousness are under the control of the operator.

Somnambulism is most common in childhood and youth. The affliction sometimes attacks the adult, but, curiously enough, idiots and imbeciles are rarely given to sleep-walking. In the simpler cases there are no definite symptoms of ill health, though there may be obscure disturbances of the nervous equilibrium; indeed, the somnambulist usually is of a nervous temperament or has a tendency towards epilepsy, hysteria, fainting or migraine.

Symptoms. During somnambulism the eyelids are closed (though they can be opened) and the pupils are dilated. The sense of touch is so greatly exaggerated that the sleep-walker seldom runs against furniture, etc. Some subjects hear well, others do not. A variety of actions, including the eating of a meal, may be undertaken by the somnambulist, but on awakening he remembers nothing of what has taken place. Sensibility to pain may be suspended, while the powers of the muscular system are unimpaired. Ordinary mental processes are active, and cases are on record in which the sleep-walker has performed elaborate mental tasks. Often a dream that has to do with the subsequent acts of the sleep-walker precedes and accompanies the walking. Speaking and singing are not uncommon.

Somnam-
bulism,
Symptoms

Somnambulism is a manifestation of a disturbance of the nervous organization. Such disturbance may be transient or it may indicate an obscure or deep-seated brain lesion. The phenomenon is almost invariably accompanied by a disturbance of physical poise.

Treatment. The treatment for somnambulism must include methods which increase the vitality and the strength of the body. It should include a cold bath in the morning and one just before retiring. A momentary dip will be sufficient, followed by a vigorous rubbing with a rough towel. Such baths may be varied by shower or needle baths. Plenty of exercise in the open air, particularly long walks, an amplitude of ventilation, both day and night, diet of a wholesome nature, congenial occupation and the society of cheerful companions all are factors in bringing about recovery from this affliction. Worry must give way to mental composure.

Somnam-
bulism,
Treatment

Instructions given elsewhere in this volume relative to insomnia (see *Sleeplessness*) may be studied with benefit by the sleep-walker. The waist girdle therein recommended is beneficial in this connection. Any recreation, habit, or vocation that puts a strain upon the nervous system must be avoided. Regular hours for retiring and eating should be cultivated and the evening meal should be light and easily digested. Somnambulists should persuade themselves that their affliction will positively be remedied by the adoption of these methods.

SORE THROAT.—See *Croup; Larynx, Diseases of; Pharyngitis; Tonsils, Diseases of.*

SPASM.—Spastic movements or contractions of the muscles not produced voluntarily. A spasm is said to be *tonic* when the contraction is continuous; *clonic* when there is alternate contraction and relaxation. The most frequent form of local spasm is a spasmodic affection of the neck. The muscles of this part contract involuntarily and this causes the head to be twisted towards the affected side. This condition is considered separately. (See *Wry-*

Spasm

neck.) The spasmodic movement which occurs frequently, is a nervous affection due to constitutional causes. (See *Cramps; Convulsions; Epilepsy; St. Vitus' Dance.*)

Spasm,
Treatment

Treatment. The best means of securing immediate relief from an acute attack of this kind is to move the part in such a manner as to stretch the muscles contracted by the spasm or cramp and to press the affected tissue between the fingers as vigorously as possible. This, together with kneading and massaging the muscle and the stretching process, usually will bring immediate relief.

When possible, immersing the part in hot water or the application of hot wet packs will be of great value in relaxing the muscles and relieving the spasm. In a stubborn case cold water may be applied to that region of the spine from which emerge the spinal nerves governing this section of the body. For instance, in a spasm of the muscles of the legs or the abdomen cold applied to the lumbar region of the spine would be effective. The muscles of the trunk about or above the waist will be influenced by treatment of the dorsal spine with cold water. Spasms of the arms, neck, shoulders, or upper chest will be influenced by cold applications to the cervical spine. Sometimes heat will have more pronounced relaxing effect than cold. Treatment of the affected part by means of Special Exercise Treatments (See Vol. VI, Sec. 3) will be of great benefit.

Spasm, Con-
stitutional
Treatment

Naturally, symptoms of this kind indicate more or less vital depletion. Constitutional treatment would be necessary in endeavoring to prevent future attacks. It may be depended upon that as soon as the nerves have been strengthened by such treatment there will be little further trouble. If possible, excitement and all amusement or occupation which involve nervous strain should be avoided. Confinement indoors is inimicable to the welfare of the nervous system, so the patient should make it a point to stay out of doors and take long walks every day. Air-baths, sun-baths and dry friction baths have a tonic effect upon the nervous system and are especially to be recommended.

In most cases also an improved dietetic routine is necessary, for toxemia must be corrected and prevented. In many cases a modification of the diet, such as that suggested in Limited Diets Nos. 1, 2, 4 and 5 for a period of two or three weeks, will be satisfactory; in other cases a complete fast will be more advantageous, cleaning the entire body and building up vitality and new healthy tissue. A milk diet (No. 1) may be used thereafter if one is reduced in weight and strength; otherwise the patient may return gradually to the use of a balanced diet, but with great care to avoid overeating.

Aside from the use of cold water applications to the spine as a means of relieving the immediate spasm, hot spinal packs may be given each day, together with appropriate Special Exercise Treat-

ments to stimulate the entire nervous system. Special Manual Treatments Nos. 11 to 16 will be valuable for this purpose if the patient can have assistance; Self-Applied Exercise Movements Nos. 1 to 6 are otherwise recommended. Massage, osteopathy, infra-red or incandescent light heat, diathermia, and local and general irradiations by sun lamp all may be used with great benefit. But when possible there should be complete exposures to sunlight sufficient to produce sweating as well as tanning. (See also *Convulsions*; *Cramps*; *Epilepsy*; and *St. Vitus' Dance*.)

SPASMOPHILIA.—A marked tendency toward the development of spasms or convulsions. It indicates continued nerve irritation and lack of vitality. In itself it is a chronic condition, though the spasms are acute.

Spasmo-
philia

The essential *treatment*, therefore, should be directed toward building up the nervous system. Measures such as are suggested for *Neurasthenia* would be of great assistance. Spinal manipulations, color therapy and in many cases mental therapy should be given special attention. (For the immediate treatment of the spasms when they arise, see *Convulsions* in Vol. VII and *Spasm* above.)

SPEECH DISTURBANCES.—Inability clearly to communicate thought by means of speech may range from stuttering, stammering and lisping to total deaf-mutism. It may be due to nervous disorders, as in the case of a stutterer; to organic defects, as in lisping; or to organic injuring of the facial nerves, as in facial paralysis.

Speech Dis-
turbances

Tongue-tie is due to a congenital shortening of the frenum or under-cord of the tongue, this interfering with the mobility of the organ.

Aphasia is a disorder characterized by forgetfulness of words or difficulty of connecting thought and speech. It is somewhat allied to certain mental disorders. In many cases it is due to a deficient nutrition of the nerve cells and brain cells in the speech center. (See *Aphasia*; also *Dumbness*.)

Treatment. Measures for correcting these difficulties consist chiefly in constitutional treatment, thus improving the nutrition of the nervous system. Measures for purifying the blood and building up vitality also are indispensable. In cases of stammering and stuttering it often is sufficient to avoid nervous excitement to obtain a cure. Instead of attempting impetuously to express themselves, if patients will pause until they have complete self-possession and then speak deliberately, they will soon find themselves free from this embarrassing difficulty. They should also strive to forget themselves and thus overcome all self-consciousness.

Speech Dis-
turbances,
Treatment

The sufferer from speech disturbances will do well to study the instructions on Voice Culture in Volume V, Section 7. The practice of deep breathing exercises is an invaluable means of ac-

quiring control of the diaphragm. A special routine should be adopted for improving the general health and building up the nervous system. Where there are defects of nutrition, as there are in most instances, a special diet should be adopted, with a view not only to purify the blood but to build up vitality in every possible way. A short fast should be followed by Milk Diet No. 2, 3 or 11 if one is below weight, or if of normal weight by Limited Diets Nos. 1 to 5, adhering to one diet at a time for at least one day. After this a return may be made to a general diet, though it is important to avoid overeating and other dietetic errors.

As a means of developing nervous energy, spinal stimulation will be of value. A hot spinal pack or alternate hot and cold spinal packs may be recommended, to be followed by Special Manual Treatments Nos. 1 to 10.

In addition a general vitality-building routine should be adopted, special attention being paid to outdoor life, air baths, dry friction baths, sun-baths, walking and general exercise.

Tongue-tie requires the cutting of the frenum, thus liberating the organ from its restricted position. It should be done by a competent surgeon to obviate the possibility of cutting an artery.

SPERMATORRHEA.—See under *Seminal Losses*.

Spinal Cord,
Diseases

SPINAL CORD, DISEASES OF.—Treatment for diseases of the spinal cord will be found under *Locomotor Ataxia*, *Syringomyelia*, *Paralysis*, *Muscular Atrophy*, *Infantile Paralysis* and *Meningitis*.

The above are some of the most important of the spinal cord diseases. Others are so rare they need not be described here.

Tumors of the cord can be treated only by the constitutional methods suggested for tumors of other portions of the body.

Inflammation of the Spinal Cord (Myelitis) may follow cold, injury, the acute specific fevers, compression of the cord by tumors, etc., infantile paralysis, or syphilis. In this disease the spinal cord becomes swollen and soft at the inflamed point or points, which may be in one large or several small areas of the spinal cord. There is paralysis of all parts of the body supplied by nerves in or below the affected portion of the spine. Girdle pains about the body at about the level of the lesion are frequent. Either loss of sensation or supersensitiveness exists. There frequently is dribbling of urine. Myelitis requires rest and hot spinal applications, otherwise the same constitutional routine as advised for Paralysis, which see.

Spinal Cord
Diseases
Acute
Ascending
Paralysis

Another form of disease of the spinal cord is called *acute ascending paralysis*, or *Landry's paralysis*. In this form a progressive paralysis commences in the lower extremities and ascends from the legs to the trunk, thence to the arms, diaphragm, and finally to the nerves of the brain. But the patient usually dies before the brain is reached, from paralysis of the diaphragm and muscles of respiration. Some

cases recover before the paralysis reaches the latter muscles, or when the paralysis has been only partial. Treat the same as for other forms of paralysis.

SPINE, DISEASES OF.—Spinal curvature and caries are conditions not uncommon and in some cases not very serious, though caries may lead to serious impairment of health in the form commonly called Pott's Disease.

Spinal
Diseases

Spinal Curvature consists of deflection of the spinal column from the normal. This may be lateral (sidewise), or anterior (forward) or posterior (backward), and often involves more or less twisting of the spinal column. Lateral curvature is called *scoliosis*, and causes the bending of the body to one side or the other; anterior curvature (forward curving of the spine) causes the body to bend backward and is called *lordosis*; posterior curvature (backward curving of the spine) is called *kyphosis*.

Spinal
Curvature

Round Shoulders present an appearance somewhat resembling kyphosis, and should be treated in the same manner. (See *Shoulders*, pages 1189 to 1192, Volume III.)

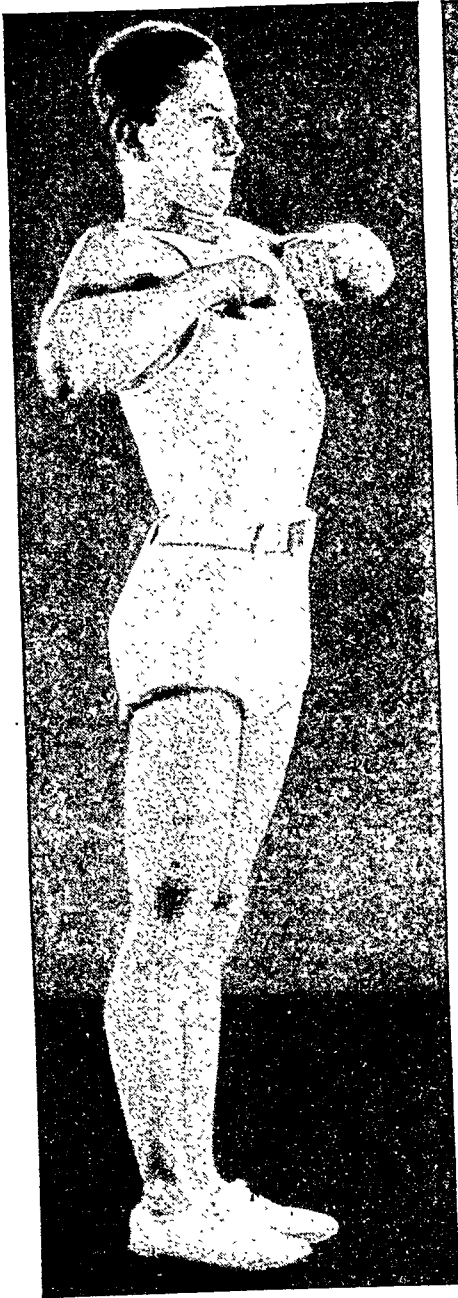
Lordosis is most common in the lower spinal (lumbar) region, and kyphosis in the middle or thoracic region. Scoliosis usually involves both thoracic and lumbar regions and even the cervical region.

Treatment. While diseases of the spine often are regarded as incurable, they should not be imagined as beyond relief. It should be borne in mind, of course, that at the outset any exercises or movements intended to remedy conditions of this nature should be performed carefully. The milder movements taken in the earlier stages of treatment may be gradually made more vigorous as the patient increases in strength; but under no circumstances should any risk of tiring or exhausting the important nerve centers of the cord be involved by treatment.

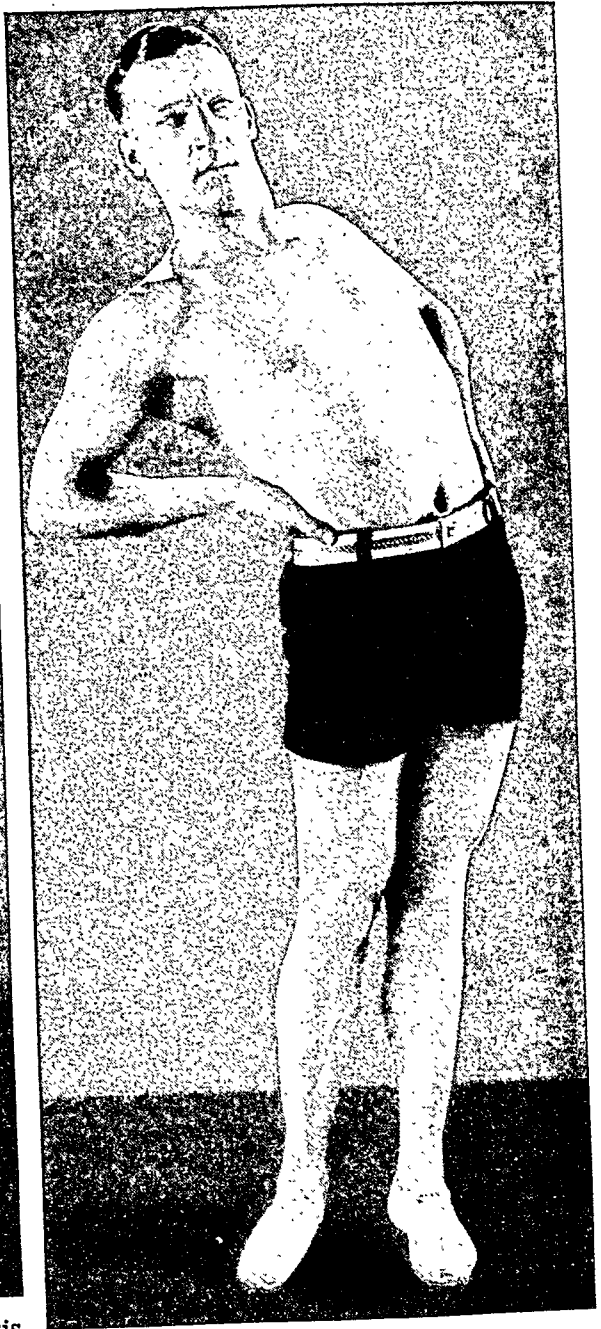
Spinal
Curvature,
Treatment

No condition more clearly demonstrates the value of natural methods of treatment than curvature of the spine, inasmuch as many cases, that otherwise would seem hopeless, may be benefited or completely cured. In case the curvature is due to weakness of muscles and ligaments, as the result of lack of exercise and incorrect carriage, the remedy will consist almost entirely of exercises which strengthen these muscles and ligaments, drawing the spinal column back into its normal position and maintaining a proper bodily attitude.

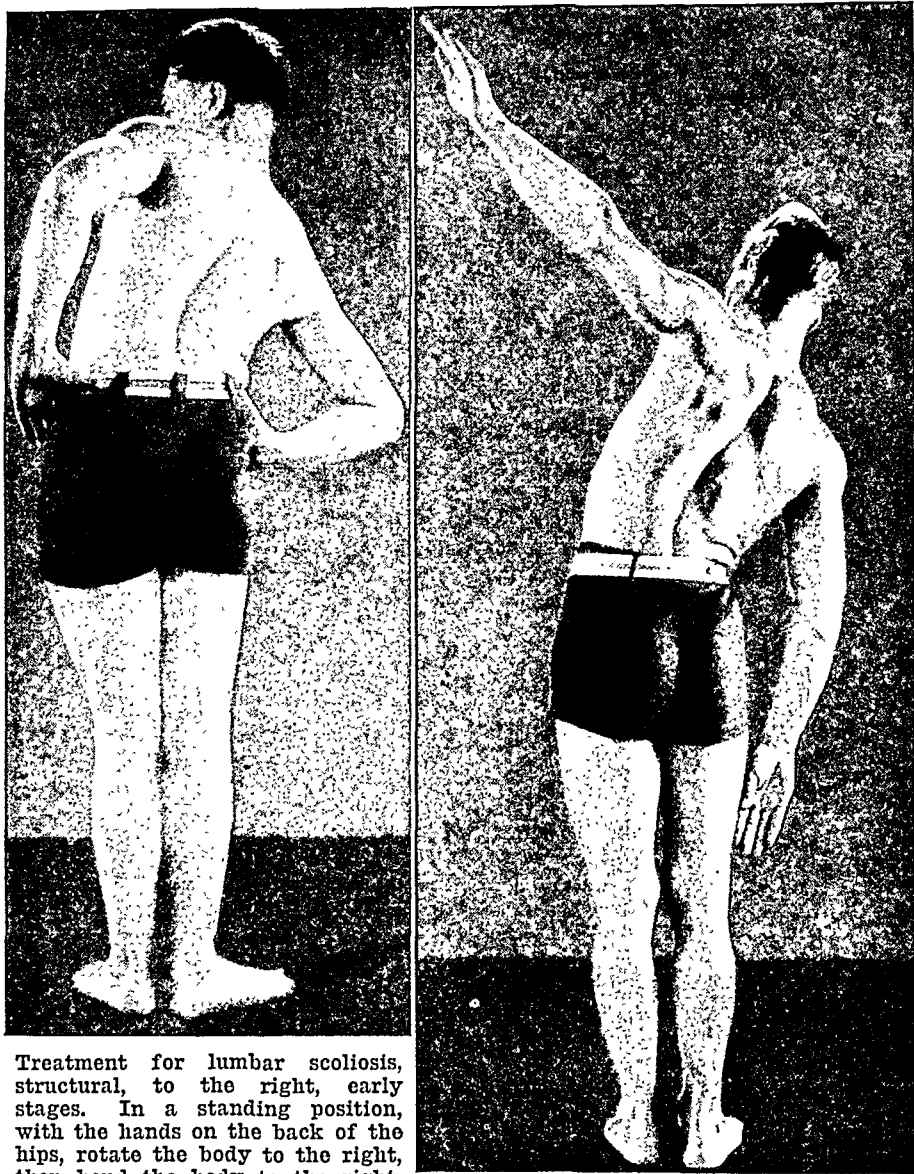
All measures which have a tendency to stretch the spine may be specially recommended for this purpose. Exercises which consist of hanging by the neck may be advised, executed with the use of a heavy bath towel containing a loop into which the head is fitted and suspended from over a doorway. At first only a part of the weight of the body should be sustained in this way. If strong



Treatment for thoracic kyphosis and for round shoulders. In a standing position, with the chin drawn down and back, roll the shoulder backward, extend the arms forward, then pull them back with a snap by bending the elbows and drawing the fists in close to the shoulders.



Treatment for lumbar scoliosis, structural, to the right, late stages. In a standing position, place the hands on the back of the hips, rotate the body to the left and bend trunk to the right. Turn the head to the right if there is compensatory thoracic curve (left) in the late stages.



Treatment for lumbar scoliosis, structural, to the right, early stages. In a standing position, with the hands on the back of the hips, rotate the body to the right, then bend the body to the right. If there is compensating thoracic scoliosis (left), keep the head turned to the left. Though this structural disease is often considered as incurable, such exercises as these may prove of benefit.

Treatment for thoracic scoliosis, structural, to the right, early stages. In a standing position, bend the body to the right, draw the right shoulder down and raise the left arm above the head (higher than here shown).

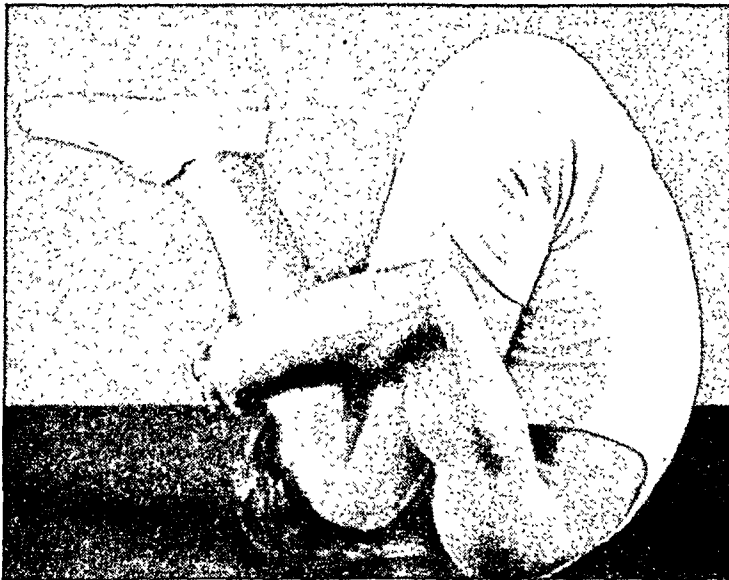
enough the back of the head may be bent back to form an angle so the towel loop may sustain the body. See *Traction* under *Miscellaneous Treatments and Health Factors* (Vol. VI, Sec. 7).

Exercises which consist of standing on the head, with feet against a wall to preserve the position easily, will be found advantageous for strengthening the entire spine, though the hands should support most of the weight at first, gradually assuming less responsibility as the neck muscles become stronger. All possible movements of the back, found in various sections of Volumes

Spinal
Curvature,
Exercises for



Treatment for lumbar lordosis. In a reclining position, face upward, draw up the knees until the thighs are pressed against the abdomen, clasp the hands about the knees, and pull downward. Relax and repeat.



From a sitting position, with the knees drawn up and the arms clasped around them, roll backward, then forward again, to a sitting position. Relax and repeat.

III and VI are valuable. All stretching and bending exercises may be recommended, together with movements for twisting and turning the spine. The reader is particularly referred to the illustrations of Special Exercise Treatments in Vol. VI, Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10 and 15 to 20 for various movements that will be valuable as affecting the back. Specific manipulation of the spine and exercises adapted to the particular case are given for various forms of spinal curvatures. It is highly impor-

tant that exercises and manipulations be properly taken and given, according to the location, direction and degree of abnormality in any given case of spinal curvature, or more harm than good will result.

In the case of children, the condition most frequently results from rickets or a tuberculous affection; in short, the ultimate result of imperfect nutrition and a generally defective state of health. In such cases constitutional treatment is absolutely necessary in addition to exercises of the kind just referred to. A hot spinal pack also will be of great value to precede the exercise. The child should play out of doors and should be encouraged in every form of activity; air-baths, sun-baths and dry friction baths will be of great benefit.

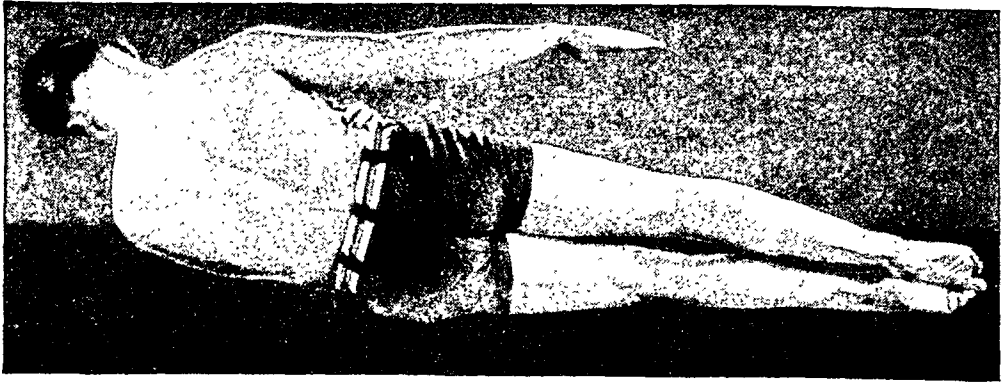
Radical modifications of the diet will be necessary in nearly all instances and the exclusive milk diet may be suggested as an effective and rapid means of bringing about a condition of perfect nutrition and increased vitality. Naturally this should be preceded by a fast of one to three or four days, though in the case of children Partial-Fasting Routine No. 1 or 4 may prove more satisfactory. Milk Diet No. 1 should be used, modified as regards the quantity of milk consumed to suit the capacity of the child. Beyond this a general vitality-building routine should be adopted, as in the case of rickets. Cod-liver oil should be given regularly until a normal condition has been brought about.

Pott's Disease or *Caries* is a tuberculous disease of the spinal vertebræ, characterized by the softening and degeneration of the bony tissues; naturally, the vertebræ fail to support the weight above, so the result is great deformity. The disease is most common among poorly nourished children and those who suffer from



Treatment for thoracic lordosis. In a standing position, clasp the arms over the chest, bend the head forward, and hug yourself tightly. Relax and repeat, but take care not to tire the important nerve centers affected by such spinal exercise.

Spine, Pott's Disease of

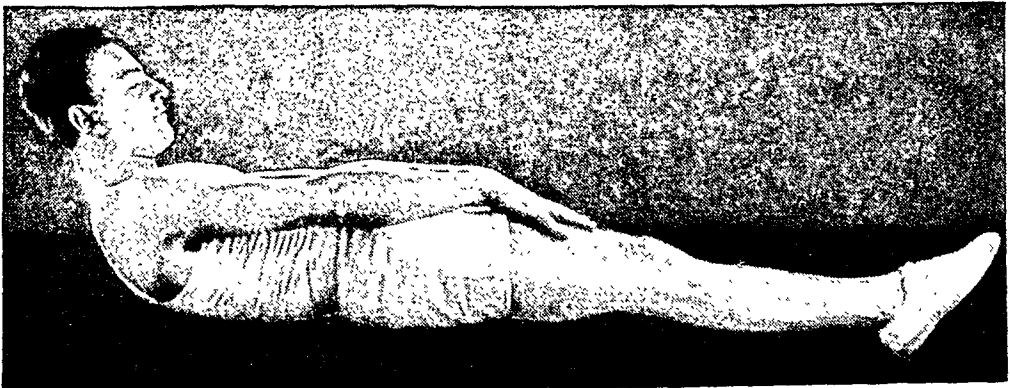


Treatment for thoracic scoliosis, structural, to the right, early stages. Reclining on the left side, with the feet kept or fastened down, raise the upper body, and stretch downward toward the feet with the right arm, keeping the neck relaxed. Relax and repeat.

rickets; it also affects adults in some cases. It begins with an inflammation of the bones (osteitis). As the vertebræ become soft the bone corpuscles undergo a fatty degeneration and waste away, even to the point of liquefaction. The extent of the deformity that ensues depends upon the number of vertebræ affected. The spine above the diseased parts sinks down, the body is bent forward and the spinous processes project backward. This deformity is more marked when the disease lies in the dorsal region.

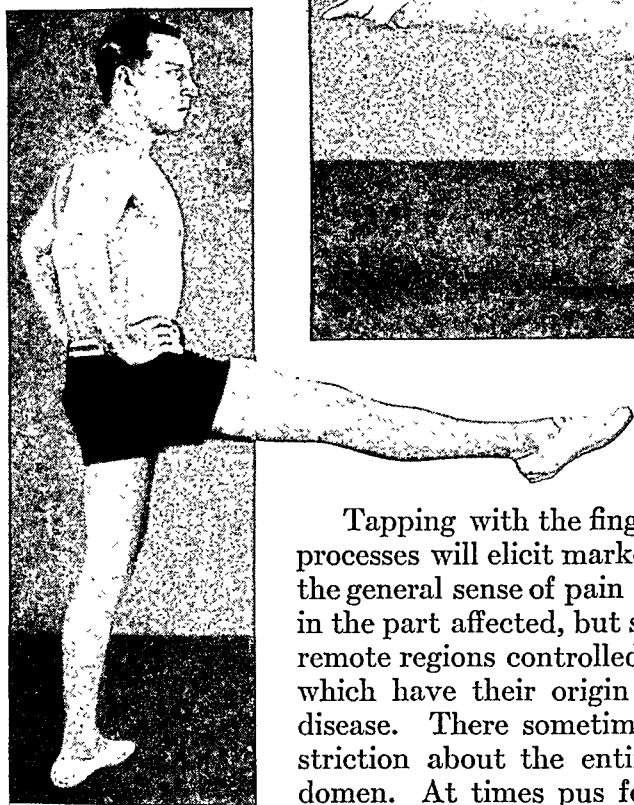
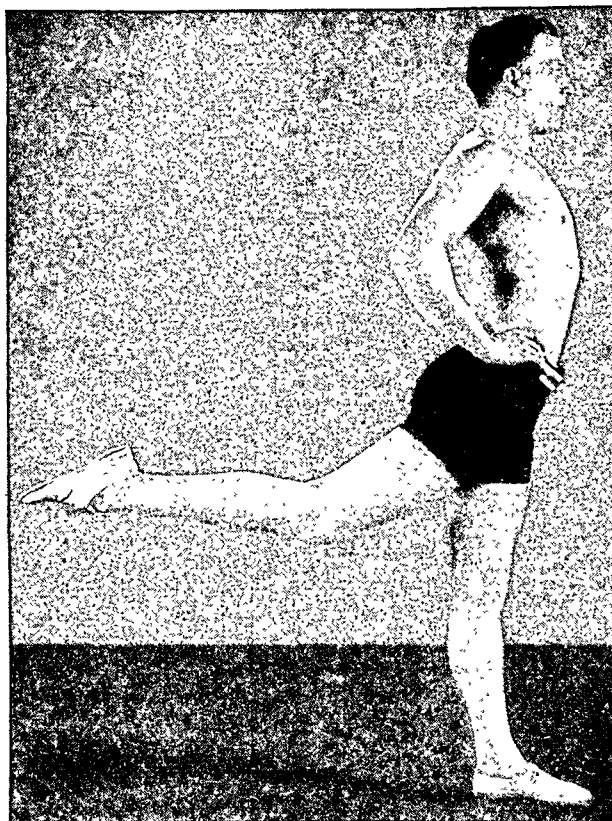
Pott's Disease, Symptoms

Symptoms. In the advanced stages of the disease the deformity will indicate clearly its nature; but in the beginning its characteristic symptoms are tenderness upon pressure, together with a general sense of weakness. There is a peculiar rigidity of the back, for the patient is disinclined to use the muscles of the affected part, preferring to turn the entire body rather than turn the head in looking around; he also keeps the entire back rigid by bending at the knees and hips when picking up anything from the floor.



Treatment for thoracic lordosis. In a reclining position, face upward, raise the head and shoulders partly up and slide the arms forward along the front of the thighs. Hold the position a few seconds, relax and repeat.

Treatment for lumbar kyphosis. In a standing position, place the hands on the hips, then, alternating left and right, raise the legs backwards. Bring the shoulders well back each time a leg is raised backward.

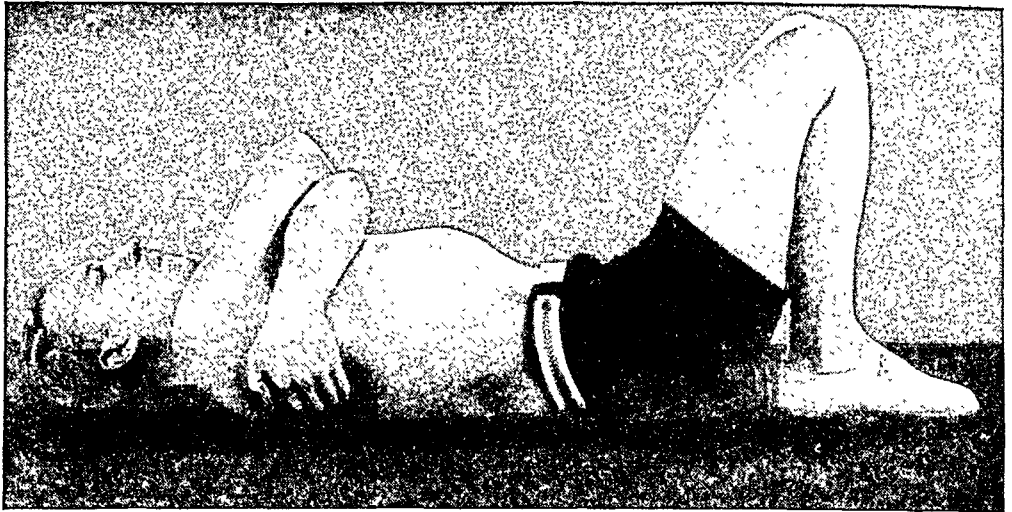


Treatment for lumbar scoliosis, structural, to the right. In a standing position with the hands on the hips, raise right leg to the level of the hip, raising the leg to the side instead of to the front, bending the body to the right.

Tapping with the fingers upon the spinous processes will elicit marked tenderness, though the general sense of pain is not usually located in the part affected, but seems to be felt in the remote regions controlled by the spinal nerves which have their origin at the center of the disease. There sometimes is a sense of constriction about the entire chest and the abdomen. At times pus forms around the diseased part and, seeking an outlet, sinks by gravity to distant parts of the body where it finally may break through the skin. Thus the so-called *cold-abscess* develops.

The *treatment* of this disease must be of a constitutional nature—purifying the blood, improving the nutrition of the bone tissues, .

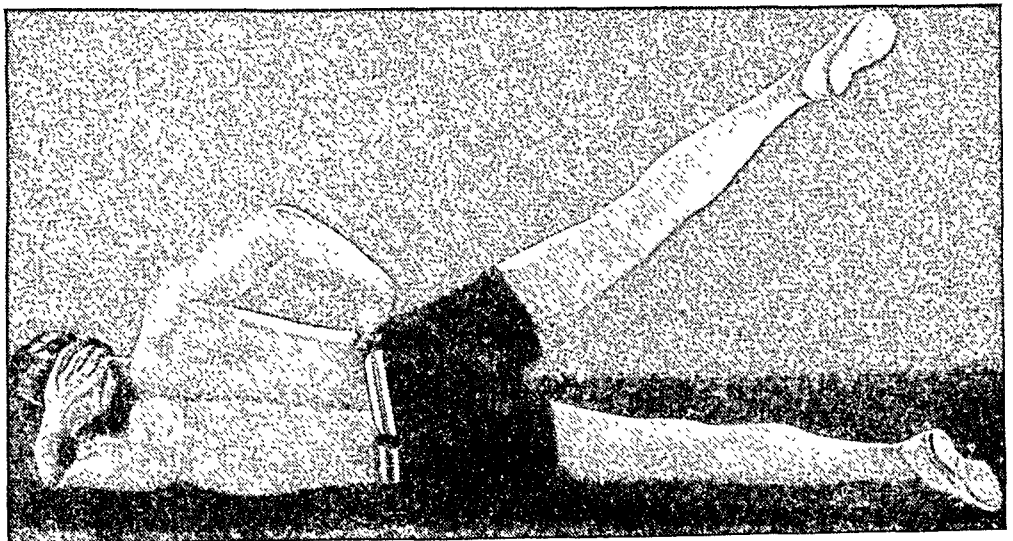
Pott's Disease, Treatment



Treatment for lumbar kyphosis. In a reclining position, with the face upward, draw the heels up close to the thighs, fold the arms on the chest, then raise and lower the hips.



Treatment for thoracic kyphosis. In a reclining position, face upward, with closed fists and arms flexed at the sides, press down on the elbows, thus raising the head and shoulders.



Treatment for lumbar scoliosis, structural, to the right, transitional stages (also all functional stages). Reclining on the left side, place the left hand under the head, the right hand on the hip, then raise and lower the right leg.

eradicating the tuberculous tendencies by raising the body's resistance against the causative bacteria.

The lack of chemical balance between the blood ingredients calcium and phosphorus present in tuberculous and rachitic patients must be corrected. The softening of the bone and the progress of the disease depend upon inadequate provision of nourishing elements and lack of strength and resisting power of the tissues. For this reason every possible means of adding to the vitality of the patient should be adopted.

Living outdoors, together with sun-baths, air-baths, light friction baths and all other helpful measures of this kind, is to be insisted upon. A child with this condition should be put to bed and kept from physical activity. A frame may be used to immobilize the spine, or sand-bags of sufficient size may be placed closely along the patient's sides. This immobilization of the spine, together with sun-baths and proper diet, will permit healing or a restoration of a normal condition of the spinal column. The general treatment should be the same as in any other case of inflammation or tuberculosis of the bone.

In the treatment of adults Complete Fast No. 3 should be followed for at least three days, or for ten to twenty days if the vitality and the weight of the patient will permit it. In the case of children, a fast of one or two days will be sufficient, though Partial Fast Routine No. 1, or 4 probably would be equally satisfactory and far more agreeable than other fasts. After this fast or partial fast, as the case may be, an exclusive milk diet is by far the most satisfactory dietetic routine that can be adopted to bring about a condition of improved nutrition and vitality.

Milk Diet No. 6 is recommended for children, but the diet will have to be modified so far as the quantity of milk is concerned. This diet may continue indefinitely or so long as the patient is gaining in weight. After normal weight is reached, Milk and Fruit Diet No. 1, 2 or 3 may be used for a time if it appears appetizing. After resuming the use of other foods great care should be taken to insure a plentiful supply of uncooked foods, as in Fruit and Nut Diet No. 1, Cereal Diets Nos. 1, 2 and 3, and Salad Diet No. 4 or No. 6. It is most important, however, to adhere to the milk diet until a radical improvement has been made.

Hot spinal applications should be given daily. Owing to inability to obtain the tonic effect and influence of exercise, the patient should receive daily passive massage, it being necessary to avoid such movements as cause spinal motions. As his condition improves, his blood becoming purified and all of his tissues more perfectly nourished, the tuberculous condition may disappear along with the inflammation, and with growth good healthy bone tissue will result.

Pott's Disease, Diet for

Where there already is a marked degree of deformity the same constitutional treatment should be adopted, because vitality, nutrition and the purified condition of the blood are the prime essentials towards recovery. Where the bones have softened and crumbled, a support will be necessary to hold the body erect while the curative processes are carried on. Surgical implement houses can supply braces or other forms of support for the purpose, though it is always best to have a properly fitting plaster cast made by an expert.

In every acute case it will be necessary for the patient to assume a recumbent attitude for some time. The objection to this lies in the loss of strength which it entails. But if necessary it is better to lose this muscular strength than further to damage the spine. However, if the patient is gradually accustomed to sunlight so that he spends several hours daily lying nude in the sunlight, the tone and strength of the muscular system will not suffer. This is especially true when the patient is living at a moderately high altitude.

The fasting routine, milk diet and other factors of the treatment may be carried on just the same as in the first stages of the disease. Even where deformity has come about through the softening of the bones, beneficial results will manifest themselves by the formation of new bony tissue, the débris and waste being dried up or absorbed and eliminated.

Theoretically, braces and supports are not to be recommended. In a case of this kind, however, they are necessary; but even when they are used the patient should receive the equivalent of exercise in massage and sun-baths. *The spine itself should never be exercised when there is active inflammation.* A complete and permanent cure is impossible in this disease without complete rest during all acute stages of the disease. Along with complete rest must come a suitable diet, and the use of such other natural measures as have been heretofore suggested.

SPLEEN, ENLARGEMENT OF.—This is not a disease in itself, but must be regarded as an accompaniment of some other disorder, such as malaria, a fever such as typhoid, or some grave blood-disease, as leukemia. The treatment outlined for any disease with which the spleen enlargement exists is to be followed. The spleen will reduce when the cause and need for its enlargement no longer exist.

SPOTTED FEVER.—One synonym for *Meningitis* (which see, this volume, page 3512).

SPRAINS.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

SPRUE.—See *Thrush and Mouth, Inflammation of*.

Spleen, En-
largement of

SQUINTING.—See *Sight, Disturbances of*.

STAMMERING.—The term “stammering” covers all speech defects characterized by hesitation in speaking, holding sounds, making sudden stops, gliding from one sound to another, repetition of words or sounds, mispronunciation, or transposition of certain consonants. It includes *stuttering*, though this latter term is used almost specifically to refer to the useless repetition of sounds or syllables, the main difficulty being in passing the first consonant.

Stammering

Among the *causes* of these speech defects may be mentioned the following: Heredity, and injury in an occasional case; depleted nervous system, which causes defective innervation, hence interference with muscle-control, and thereby improper breathing, tension in the vocal cords, and lack of tongue and lip control; imitation until the habit is acquired; mental strain or shock; fear suggestion, as by threats of the “bogy man,” etc.; severe punishment; constant nagging.

In these cases a fear complex or an inferiority complex and self-consciousness result in the speech defect. In older children overstudy may be a cause. In adults it may be due to sexual excesses or sexual abuse or anything that brings on a feeling of inferiority. Lack of proper hygiene, poor foods (especially devitalized foods), deficient air and sunlight, excessive use of tea and coffee and anything else which depletes the nervous energy may serve as causes or contributing causes.

Treatment. It first is necessary to remove fear and to overcome the extreme self-consciousness. The stammerer or stutterer must be taught to ignore the thoughts and remarks of others, and be assured that the difficulty can be overcome. He should repeat to himself frequently that he has perfect control of his speech, and suggest to himself calmness, poise and balance. He must think out beforehand what he is to say, *avoid haste* and tension, and proceed with confidence. The early improvement from this will help remove the fear.

Stammering,
Treatment

Special vocal exercises include humming, whistling, singing, reciting memorized matter, speaking before a mirror and enunciating vowels, consonants and syllables separately. Deep breathing must precede and accompany all these, and diaphragm control must be mastered. (See *Breathing Exercises*, Volume III.) Ordinary deep breathing should be combined with the vocal exercises. Take a deep breath, then hum a certain note or series of notes as long as the breath holds out. Do the same while varying the volume of the sound from soft to loud and back to soft again. Then practice humming and whistling, breathing in as well as out. Then sing vowel sounds, and then words which have been memorized. Recite memorized matter aloud and alone (preferably before

a mirror) until confidence has been gained, then in company. Poetry should be used first, then prose.

After gaining breath control through breathing, humming and whistling, the enunciation of separate sounds and syllables can be started, standing before a mirror to follow tongue and lip movements. Enunciate various letters at first, then in groups of two, three, four or more, gradually increasing the speed with which the sounds are changed. Then practice the same in syllables.

Avoid ordinary talking for the most part until improvement and confidence have been gained. Always in talking to others avoid haste and tension. Concentrate the attention on the enunciation, not on what others may be thinking. Concentration is not tension, but calm attention to the business in hand.

Patience is necessary to overcome stammering or stuttering, especially in the case of children. But, regardless of the cause of the speech defect, persistence of the patient himself or of those looking after his training will bring good results. It is a matter of building up the general health, strengthening the nerves, and re-educating the muscles involved. (See also *The Voice and Personality*, Vol. V, Sec. 7.)

Staphyloma

STAPHYLOMA.—A tumor of the eye caused by the bulging or giving way of the cornea or sclera. (See treatment for *Eye, Diseases of*.) Surgical interference may be required.

Sterility

STERILITY (*Barrenness*).—Sterility in women is the inability to conceive and to bear children. It may be the result of malformations, defective development or displacement of the uterus, disease of the uterus, tubes or ovaries, tumors, severe anemias, marked obesity, idlent habits and general debility. Displacements cause sterility in a mechanical way by making impossible the entrance of the male germ cell into the interior of the uterus. Profuse menstruation, hemorrhages and similar disturbances may bring about a similar condition. Gonorrhea also is a common cause of sterility.

It must be remembered that in some cases when a woman does not conceive it may be the fault of the husband. If a woman is healthy and apparently normal, the husband should be the subject of inquiry. In other words, the woman may not be sterile at all, it being only apparently so from the fact that she does not conceive. It has been estimated that the husband is at fault in about one-fifth of all fruitless marriages.

Sterility
in Men

Sterility in men is the lack of fertilizing ability. This may or may not be accompanied by impotence (which see). This condition consists essentially of a lack of seminal fluid; or if there be such a secretion, in the absence or lack of vitality of the spermatozoa in that fluid. Gonorrhea is one of the most common causes of sterility in men, chiefly because of the permanent closing of the

fine tube of the epididymus on each side from the inflammation of the disease.

Inflammations and infections of the seminal vesicles and of the prostate gland may generate poisons which either destroy the spermatozoa or deprive them of their functional power. Any condition which mechanically prevents the spermatozoa from reaching the ovum will result in sterility. Consequently impotence means practical sterility. Conditions of lowered vitality or general exhaustion, imperfectly developed or diseased testicles, injury of the glands and occasionally some brain or spinal cord disease may cause sterility. In a large number of cases it is the result of the depleted vitality due to masturbation or sexual excesses. Drug habits, alcohol, etc., sometimes are also the cause. Lack of sufficient foods rich in the recently discovered fertility vitamin doubtless is a cause or a factor in some cases.

Treatment. In all those cases where sterility is the result of chronic poisoning or the result of specific diseases, attention must be given to the treatment of these primary conditions. It is true that where these affections result in a radical defect in the organs concerned permanent sterility is inevitable. In most cases, however, the increase of vitality and nervous energy, together with the improved functioning of the organs following purification of the blood, will restore the normal faculties.

Sterility,
Treatment

In a great many cases sterility is the result of an impairment of the general health, or, specifically, of the lack of the essential vital qualities. In all such cases constitutional building up will be effective. Every effort should be made to strengthen the nervous system, because it is nerve power that lies back of all bodily functions.

In many cases corsets are a primary factor in producing the weakness, which sometimes disappears in cases where they are abandoned. If one has come to depend upon them, then by discarding them for a part of the time each day, taking exercises to strengthen the back and all of the other muscles of the torso and gradually wearing the corsets less and less each day, they can be eliminated with no sense of discomfort. If possible, however, they should be given up at once and forever. The question of proper carriage also is an important one in many instances, so the reader is referred to *Physical Grace and Personality*, (Vol. V, Sec. 8).

Sterility,
Exercise for

Where sterility is the result of displacement of the uterus, attention should be given to the correction of this disorder. (See *Uterus, Displacements of*.) However, in all cases a general routine for vitality-building and purifying the blood should be adopted. In most cases the first step should be a fast of three to ten days, depending upon the weight and strength of the individual.

Sterility,
Diet in

Complete Fast No. 2 is suggested, to be followed by a proportionate fast-breaking routine, in most cases No. 1. After this an exclusive milk diet (No. 1) will be effective in building up vitality. After regaining all the weight lost, or reaching at least normal weight, Milk and Fruit Diet No. 1, 2 or 3 may be adopted for a few days if desired, then gradually resuming the use of ordinary foods.

During the milk diet a neutral bath should be taken once each day and such exercise as may be indulged in should be taken in the morning previous to commencing the use of milk. During the fast, however, and after the return to the use of ordinary foods, a hot spinal pack will be of value in stimulating nervous vigor. This should be accompanied or followed by Special Manual Treatments Nos. 11 to 16, if the strength of the patient permits. Generally this treatment can be taken without difficulty. A raw food diet usually is better than cooked foods, the fertility vitamin being, naturally, more abundant in the raw foods. Leafy vegetables, whole grain cereals, milk and cream and fruits should form practically the entire diet. A general vitality-building routine as given under Vitality-Building Routines in Vol. VII should be adopted, paying special attention to the importance of long walks in the open air. (Sec. 6.)

Air-baths, sun-baths, dry friction baths and all other allied measures are invaluable for toning up the nervous system and improving the general health. Cold or alternate hot and cold sitz-baths and osteopathic or other specific spinal therapy are of great value in most cases. Outdoor life should be adopted, if possible. In any event the windows should be wide open when one sleeps indoors. Unless there is some radical structural defect these methods should restore the normal powers and functions of the generative system. Organotherapy may be considered in a great many cases, for temporary use. (Vol. VI, Sec. 7.)

Stiff Neck

STIFF NECK.—Stiffness of the neck muscles with pain and with difficulty of moving the head may arise from various causes. Probably the most frequent cause is unusual exposure which brings about a passive congestion of blood in the parts. Those people who are toxemic and have poor circulation are especially likely to develop stiff neck after exposure, or after holding the head in an unusual position for a considerable time, or being subjected to a strain.

Another cause for stiff neck is spinal subluxations resulting from injury. The injury itself may be slight and the stiff neck may not develop for a day or two afterwards, when the interference with nerve function has brought about a sufficient decrease in the circulation. Other possible causes of stiff neck include rheumatism,

spinal arthritis, and neuritis. All these conditions are fundamentally due to an excess of toxins in the body. As a rule, however, acute attacks of stiff neck do not develop without the exciting cause of exposure or injury.

Symptoms. There is a certain amount of rigidity of one or more of the muscles of the neck, with acute pain upon trying to turn the head or bend the neck. In some cases the muscles are swollen and hard and the head may be drawn more or less to one side. As a rule, in cases due to cold or a rheumatic condition, the disease readily yields to treatment. (See also *Wryneck*.) However, it is well to remember that in some cases a stiff neck may be a premonitory symptom of acute meningitis.

Stiff Neck
Symptoms

Treatment. If the stiff neck is due to rheumatism, neuritis or arthritis, the chief treatment should be directed toward these diseases. If there has been an injury, search should always be made for spinal dislocations, and upon discovery the necessary adjustments then should be made. In cases due simply to exposure and poor circulation, the following measures should be applied:

Stiff Neck
Treatment

Applied hot compresses about the neck for ten or fifteen minutes, changing frequently so as to maintain a good heat. Uniform heat may be provided by infra-red or incandescent heating lamp. These heatings should be followed by a thorough massage of the muscles. (See *Massage as an Aid to Health*, Vol. VII, Sec. 4.) This should loosen up the muscles to permit of their use. Head and Neck Movements Nos. 1 to 11 (Vol. VI, Sec. 3) should be used if possible. If there still is considerable pain and stiffness after four or five hours the treatment may be repeated. In severe cases two treatments a day may be given for several days or until the stiffness is gone. Diathermia is valuable in some cases, also. If one is cautious he may employ such means as traction, having a suitable head harness and convenient means for obtaining a direct pull upon the neck. (See *Traction*, under *Miscellaneous Treatments and Health Factors*, Vol. VI, Sec. 7.)

STOMACH, DISEASES OF.—(For acute stomach diseases see *Dyspepsia*, *Gastritis* and *Indigestion*, *Acute*.)

Stomach
Diseases

Acidity of the Stomach is a condition in which there is an excessive secretion of acid in the gastric juice. Among the causes are irritating or highly seasoned foods, alcoholic drinks, worry, grief and mental over-taxation; disease of the gall-bladder and gall ducts, chronic appendicitis and other chronic inflammations of the abdominal viscera.

The *symptoms* are uneasiness in the epigastrium within one or two hours after meals and later pain, which seems to have a definite time in relation to meals. There are belching of gas and eructations of a sour fluid. Headache, dizziness, and melancholia are common.

Stomach
Acidity

The ingestion of starches and sugars increases the pain, while albuminoid (protein) foods relieve this.

Stomach Dis-
eases, Treat-
ment

Treatment. As a rule all persons with an acid stomach can take the milk diet excellently, although some at first have trouble in taking the milk. This is because the large amount of acid in the stomach forms hard curds when combined with the proteins of the milk. Often these will be vomited. Yet the milk diet is excellent in this condition, especially when preceded by a fast adjusted to the patient's general condition. The milk diet should be adhered to for several weeks if possible. It has been found by physiological experiments that cold water increases the amount of acid secreted in the stomach, therefore during this fast *warm* or *hot* water should be taken freely.

The patient should begin the milk diet with a glass of warm milk every half hour on the very first day. If taken in this way the acid will soon be neutralized and great relief be had quickly. Should the first milk be vomited, the diet must be immediately resumed according to schedule before there is again a large secretion of acid, though a very thin slice of lemon may be eaten at this time. Should nausea reappear it may help to avoid reappearance of the symptoms. The milk diet must be continued for many weeks; and in some severe cases for several months. This is the best remedy for this condition, though many cases do better with skim milk than whole milk. Often it is best, after a few days, to take a pint of milk every hour for twelve hours a day, and sometimes to change from this to one quart every two hours is still better.

When the stomach seems to be in better condition the milk may be taken for half a day, with an evening meal consisting of easily digested and non-irritating foods. For a time it is better to use foods requiring only moderate mastication, since mastication naturally increases the flow of gastric juice, with its acid. Yet insufficient mastication of the food chosen will aggravate the trouble by causing gastric irritation. If there is very little discomfort the meals may be continued and the milk gradually discontinued. At the first sign of a return of the old symptoms the milk diet should be repeated. A general vitality-building routine should at the same time be taken up.

Stomach Dis-
eases, Diet

Milk Diet No. 1 should prove effective unless one's occupation makes its use impossible, when No. 11 may be adhered to, though after having followed this routine for a little while, Milk and Fruit Diet No. 1 or 3 may be used. Thereafter it would be well to continue for some time on one of the combination milk diets, selecting one that pleases. If at any time the appetite lessens and there is no longer a keen desire for food, a fast for one or two days is suggested.

Occasionally, an organic cause due to an ulcer will have to be patiently reckoned with until healed. The selection of a vitality-building routine adapted to the strength of the patient, followed out daily with persistence, will add vigor and increase nervous energy and consequently add digestive capacity. While on a full milk diet little exercise is advised except in the early morning, though when one begins to change his diet considerable activity of the muscles is necessary in order to give the vitality needed to assure recovery. Special Manual Treatments Nos. 11 to 16 are valuable in the treatment of this disease. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 also Hip and Spinal Manipulations Nos. 27 to 32 are especially recommended, the former series in the morning; the latter at night, before retiring.

Cancer of the Stomach is a progressively fatal disease. It progresses more slowly in thin individuals than in fleshy, showing the presence of a greater bodily encumbrance of foreign matter in the latter and the influence of such a toxemic condition upon cancer. The disease most often occurs at the site of a chronic ulcer, which may have been healed. The ingestion of hot liquids over a long period of time also is a causative factor. It may follow a chronic gastric catarrh. Cancer of the stomach is the most common form of cancer in men and it is more frequent in men than in women (about two to one). It is commonest between the ages of forty and sixty years. In about 60 per cent. of all cases the disease attacks the pyloric or small end of the stomach.

Stomach
Cancer

The *symptoms* are insidious and gradual. Persons dying with this disease usually do so in less than two years, generally in twelve to eighteen months, after the appearance of the first symptoms. The symptoms in general are loss of appetite, flatulence, pain in the stomach or referred to the shoulder, worse after ingestion of food and tenderness on pressure. The pain is dragging and almost continuous, but less acute than in ulcer. There are vomiting and loss of weight, the latter becoming extreme. Also there is a peculiar pallor of the face almost diagnostic of the disease.

Stomach
Cancer,
Symptoms

The progress of cancer frequently is so rapid that when once established little can be done besides relieving the patient's pains. But in several cases diagnosed as cancer of the stomach all of the symptoms and signs disappeared under natural treatment. The *prevention* of cancer depends upon living a physical culture life, with care in keeping the body free from poisons by active elimination at all times, the use of fruits, vegetables, nuts and whole grain products in the diet, freedom from enervating habits, poisonous drugs, meat, salt, alcohol and tobacco.

The *treatment* of cancer of the stomach is the same as for cancer elsewhere. The fast, as advised for ulcer of the stomach, should be

Stomach
Cancer,
Treatment

taken, followed by a bland, non-irritating diet rich in vitamins and alkalinizing mineral elements. Grapes and unsweetened grape juice for several weeks are excellent in this condition. We are rapidly learning that among the many mysterious natural forces which science is discovering there exists a definite amount of destructive as well as constructive force. This has been discovered to be true with both x-ray and radium which are used often for cancerous growths, sometimes with undesirable results, yet sometimes with good results. Whatever the treatment used, each cancer case often must be decided individually.

Catarrh of the Stomach, or gastritis. See *Gastritis*.

Stomach
Dilatation

Dilatation of the Stomach (gastrectasis) is another serious ailment of this organ. It is due to a general relaxed or stretched condition of the muscular coats of the stomach. In turn this is due to continued distention by gas, overloading with food, the ingestion of hot liquids or pyloric obstruction. It usually accompanies a general prolapsus of the abdominal contents, in persons weak muscularly and of lowered vitality.

Essentially there is in the walls of the stomach a loss of elasticity which prevents a proper handling of the food by the organ. As a consequence there are retention, putrefaction and fermentation of the stomach contents, producing symptoms of fullness, belching of gas and sour liquid, burning in the epigastrium and occasionally vomiting. Other symptoms are a dry and muddy skin, furred tongue, usually severe constipation, palpitation of the heart, and often difficulty in breathing.

Stomach
Dilatation,
Treatment

Treatment. The one indicated treatment in this condition is to give the stomach rest by a fast. It is a fact known to everyone who has had the slightest experience with fasting that as the fast progresses the stomach gradually grows smaller. In fact, after one has fasted for ten to fourteen days the stomach is reduced to three-quarters or even one-half or less its former capacity. The fast should be prolonged for as long a time as possible, in order that the stomach may be reduced as much as possible. It is impossible to state here how long the fast should be; but ordinarily at least seven (preferably ten) days are necessary to make any material change in the size of the stomach.

The milk diet should be used after the fast, but no more than a glass at a time and not oftener than every half hour, perhaps every three-quarters of an hour for a week or two. At the first sign of fullness or indigestion the time between the drinks must be lengthened. In some cases a diet which does not require so much milk would be better. Where milk is taken, as suggested, however, the stomach will not contain much milk at any one time. When taking up a regular diet, small amounts must be taken at each

meal and thoroughly masticated. Rest in bed is essential in some cases. Concussion of fifth dorsal vertebra for half a minute and repeating twice after half-minute rests, will be valuable, given daily or twice daily.

Prolapsus of the stomach is caused by weakening of the muscular coats of the organ, and is remedied by the same methods as are advised for viscerop-tosis (which see), or in many cases by the treatment suggested for dilatation of the stomach (see above). Milk

Diet No. 2 in conjunction with cold sitz-baths, cold compresses and general constitutional upbuilding will be of great value in most cases. Of great value are gravity rest and gravity exercises—lying head down on a suitable, inclined support. Absolute bed rest, in connection with a full milk diet during which the foot of the bed or of the mattress is raised, is advisable in some severe cases.

Other diseases of the stomach are acute and chronic gastritis, dyspepsia (which see), cirrhosis or hardening, and numerous neuroses (nervous diseases) of that organ. Nervous diseases are treated the same as ordinary stomach troubles. The treatment outlined for hypopepsia may be of some benefit in cases of cirrhosis of the stomach. See *Hypopepsia*.

Constipation commonly accompanies stomach disorders and should always have careful attention. (See *Constipation*.)

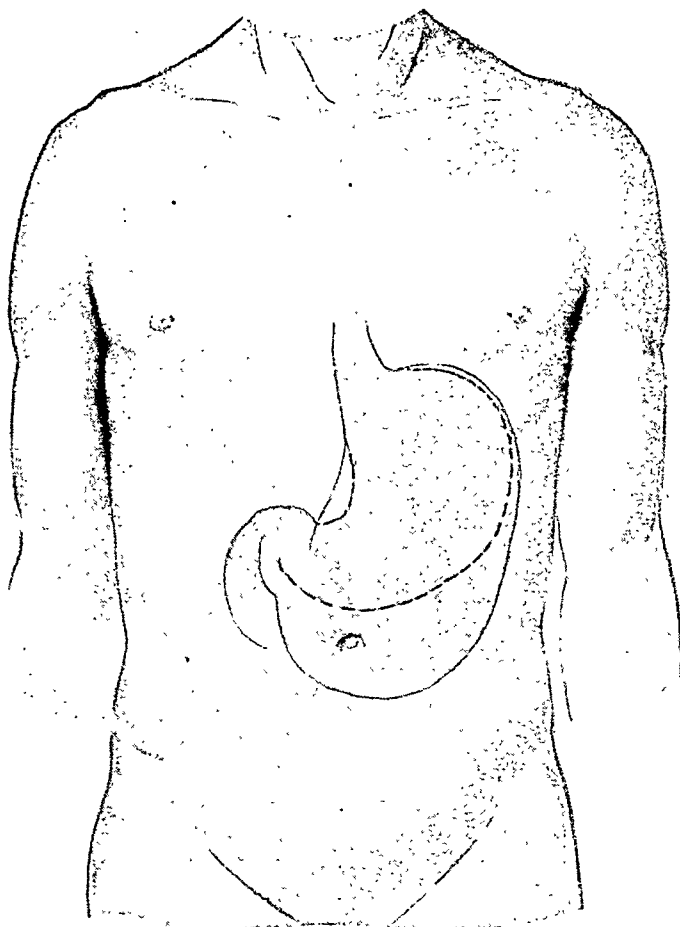


Diagram showing dilated stomach. The dotted outline shows normal size and shape of stomach.

Prolapsus of
Stomach

Prolapsus of
Stomach,
Treatment

Stomach
Ulcer

Ulcer of the Stomach usually is preceded by a long period of gastritis, though it may occur spontaneously because of anemia, acute disease, an embolus, or the ingestion of irritative substances. This disease may be acute or chronic. Acute ulcers are prevalent in young women between the ages of twenty and thirty years. Chronic ulcers affect men and women alike and generally those over thirty years of age.

Stomach
Ulcer,
Symptoms

Symptoms. There usually is hyperacidity, with sour eructations and belching of gas. Most cases complain that the stomach is painful when empty, relief being obtained by eating soft foods or drinking milk. Sometimes the pain is referred to the back at about the lower edge of the shoulder-blade. In some cases pain immediately follows eating, especially if the food is rough or poorly masticated. There may be vomiting immediately or a short time after eating, the vomitus sometimes being tinged with blood. There is a point of tenderness over the stomach and often a diffuse soreness in the abdomen. There usually is constipation, but in some cases there is diarrhea. The breath is foul and the tongue coated. There are prostration and loss of weight.

One very serious complication of gastric ulcer is perforation of the stomach wall from the eating away of the coats of the stomach by the ulceration. This is especially the case in acute ulcer. General peritonitis follows and the patient is likely to die. Stricture of the opening of the stomach into the small intestine and dilatation of the stomach are other complications of gastric ulcer.

Stomach
Ulcer,
Treatment

Treatment. As there is a sore in the stomach it is obvious that the chances of healing will be better if the stomach is given a rest for a time. To be strongly advised, therefore, is Complete Fast No. 2 for five to thirty days, depending upon the weight, strength and vitality of the patient. There probably will be more pain on the first few days following the fast, but this will disappear as soon as healing of the ulcer begins and acidity of the gastric juice reduces.

To give the stomach as much rest as possible not even water should be taken during the first two or three days of the fast. If the pain lessens sips of warm water may then be taken. Cold water increases peristalsis and therefore the pain; hence cool or warm water is best.

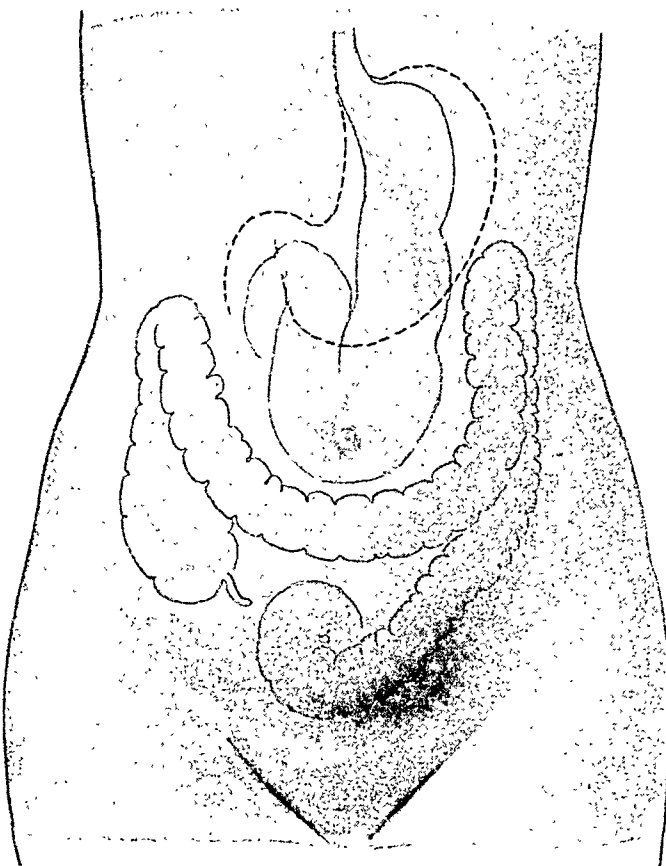
The fast must be broken carefully. It would be safer to eat less than is prescribed in the fast-breaking routine, which should be adapted to the length of the fast. In many instances best results will be obtained by breaking the fast with one of the cereal broth diets, especially No. 2, 3, or 5. This diet may be followed for a few days before changing to a more ample diet. Milk Diet No. 1 should be carefully followed for several weeks, and in some cases for several months. If one's occupation makes No. 1 impossible,

then No. 11 may be used, but if any discomfort remains from the ulcer, No. 1 should be followed indefinitely. Fruit Diet No. 7 is excellent for this disorder and may follow the milk diet for an indefinite period. Next, Milk and Fruit Diet No. 1 or 3 may be used. If pain returns the fast should be taken up for a few days and again followed by the milk. In fact, the fast and the milk diet should be alternated until the ulcer is well. There is no better routine.

In the beginning of the treatment exercise is not indicated, as the intestines must be kept as quiet as possible; but when all pain has ceased exercise should be gradually taken up to obtain the vitality necessary for permanent recovery. Special Manual Treatments Nos. 11 to 16 are especially valuable. Also Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18 may be used in the morning and Hip and Spinal Manipulations Nos. 27 to 32 at night before retiring, but in each case with moderation.

Stomach Washing. An excellent treatment for practically all disorders and diseases of the stomach except ulcer and cancer consists of thorough washing of the stomach. This may be accomplished in one of two ways. In the first, the patient should fast or remain on a diet of fruit juices for two to five days, at the end of which time three or four glasses of hot water are drunk at one sitting, the time devoted to this drinking not to exceed ten minutes, preferably

Stomach
Washing



Diagrammatic illustration of dropped stomach and transverse colon. The dotted outline shows normal position of the stomach.

much less. Immediately upon drinking the last glass the throat or back of the tongue is tickled with the finger, to evoke regurgitation of the water drunk, together with whatever secretions may be in the stomach. Sometimes it is more effective if this treatment is repeated daily for two or three days.

The second procedure consists of drinking three or four glasses of moderately hot water, then for three to five minutes going through various trunk bending and rotating movements, after which another three or four glasses of water are drunk and the same or other similar exercises repeated. This may be repeated still another time if desired and found possible. In the first method the water and stomach secretions are brought back through the throat and mouth. In the second they pass into the small intestines, causing increased peristalsis and resulting in rather copious bowel eliminations. They also have an excellent effect upon skin and kidney eliminations, increasing these greatly. In the majority of cases of definite stomach disorders the first method is to be preferred.

Stomatitis

STOMATITIS. This word is not related to stomach. It is derived from Greek *stoma*, meaning mouth, and *itis*, inflammation. (See *Mouth, Inflammation of*.)

STONE IN BLADDER.—See *Bladder, Diseases of*.

STRABISMUS (*Squint*).—See *Sight, Disturbances of*.

STRANGULATION.—See *Rupture*.

STRAINS.—See *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.

Stricture of
the Urethra

STRICTURE OF THE URETHRA.—This is a partial closing up or constriction of some portion of the urethral canal, thus interfering with the free flow of urine. A stricture of the urethra may be inflammatory, spasmodic, or organic.

Inflammatory Stricture is the result of an inflammation of the urethra or of parts near to it. The inflamed parts swell, occlude the urinary canal and interfere with the passage of the urine. As a rule proper treatment will readily overcome this condition. *Spasmodic stricture* usually is a nervous condition in which some local irritation produces a muscular spasm that contracts the canal. *Organic stricture* is the outcome, in most cases, of the inflammatory type, which leaves certain parts of the urethra permanently thickened, the structure of the canal being altered. It may be due also to the presence of foreign matter or growths in or adjacent to the urethra, to injuries, or in some cases to the caustic effects of too strong chemicals used as injections in the medical treatment of gonorrhea. As for injuries, falling astride a board, or harsh passage of sounds, may cause it.

Stricture is one of the after-effects of gonorrhea, and one of the most troublesome conditions met with in this disease. It is the

cause, in a large number of cases, of the condition known as gleet (which see). These two conditions usually go together. It can be stated that stricture may be caused also by sexual excesses, masturbation, rough usage of the organ, or sometimes from prolonged retention of urine within the bladder.

Symptoms. In *inflammatory stricture* the mucous membrane of the urethra becomes thickened and tough, the tissues beneath it also become swollen, thus pressing into and partially closing the canal. As a consequence of the inability entirely to empty the bladder, due to the obstruction, there is a constant irritation but only partly satisfied desire to urinate. This usually leads to the development of an organic stricture.

Stricture of
the Urethra,
Symptoms of
Inflamma-
tory

As a further consequence, the retention of the urine may cause serious bladder trouble, such as cystitis, with the formation of pus, or it may cause chronic inflammation of the prostate gland. Since the canal is partly closed urination is painful, the flow being slow and forced, with a considerable wait and some straining before the urine begins to flow and more or less dribbling after the flow has stopped. On account of the constriction, the stream of urine is smaller than normal and usually is flat and twisted or split into two or more streams.

Occasionally severe or even fatal conditions may arise from the presence of stricture. For, owing to the inability completely to empty the bladder, the pressure and straining may cause rupture of the urethra with consequent extravasation of urine into the parts about the rupture. Abscess or fistula may follow and in some instances hemorrhage and general infection may occur.

Treatment. Do not attempt any experimentation in these cases. Many sufferers have tried to cure themselves by the use of bougies or "sounds." These are dangerous in inexperienced hands. For if not thoroughly sterile and if one is highly toxemic they may produce infections. In any event they may produce tearing of the urethral canal, or set up inflammatory processes which render the already existing conditions much worse. Caustics also are dangerous. Remedies advertised for the cure of strictures by dissolving them are to be avoided.

Stricture of
the Urethra,
Treatment

Constitutional treatment is essential in stricture. Of course, it should be devoted to the cure of any remaining gonorrheal condition. The drinking of large quantities of water is important for the purpose of diluting and rendering the urine less irritating. This is especially important if there be any gonorrhea, or in cases of spasmodic stricture where gout, rheumatism, fever or other condition has caused a highly concentrated or highly acid condition of the urine. The lower bowel should be kept empty by means of enemas, though preferably the bowels should be kept open with

fruit or food laxatives or by drinking large quantities of water. The patient must live a quiet life, eating a simple, non-stimulating diet, and must do everything to build up his blood and his general condition. Sexual activity often should be discontinued or greatly reduced, though often an occasional indulgence permits more free evacuation of the bladder for several days following.

In some of the cases of *acute inflammatory* stricture a short fast is to be recommended, Complete Fast No. 3 being preferred, after which Fast-Breaking Routine No. 1 is to be observed.

In all cases local wet packs are beneficial; if there be much pain hot packs may give more relief; but otherwise cold packs are to be used. The "T"-Bandage is excellent and convenient. (See compresses under *Water and Health*, Vol. VI, Sec. 2.) Prolonged hot sitz or hot full baths give relief. Either of these may be taken daily, though each should be followed by a brief cold or cool application. This should be less severe after the sitz-bath than may be permissible after the full bath, unless the reaction is prompt and vigorous. The hot anal (ascending) douche is beneficial also.

In *organic* stricture absorption of foreign deposits is to be attempted. Hence the need for general up-building constitutional treatment. If the treatment as outlined is ineffective and the condition is not relieved, surgical treatment may be necessary. However, when properly employed, diathermia or galvanism is sometimes recommended and urethral sounding, properly done, may prevent interfering contraction of the urethra for many years.

STROKE.—This term is applied most frequently to apoplexy. See *Apoplexy*, *Paralysis*, *Sunstroke* and *Heatstroke*.

STRUMA.—See *Scrofula*.

STUNNED.—To be temporarily unconscious or insensible, as from a blow, usually but not necessarily on the head. (See *Unconsciousness in First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

STUPOR.—A condition of insensibility or of partial consciousness. (See *Coma*.)

STUTTERING.—See *Stammering*.

STY (*Hordeolum*).—A small boil on the surface or the margin of the eyelid. It generally is an inflammation of one or more of the sebaceous glands. A sty is fundamentally due to a general toxemia, the same as any other boil, but the exciting cause may be eyestrain or foreign matter in the eye.

Treatment. Local treatment often is sufficient for a sty. The eye should be given as much rest as possible, and antiseptic applications should be made several times daily. Salt water and boric acid water are satisfactory. Hot compresses will relieve the pain, assist in bringing the boil to a head and in facilitating discharge of pus. The compresses also may be applied several times daily.

Stricture of
the Urethra,
Acute In-
flammatory,
Treatment of

Sty

If very weak solution of sulphate of zinc and distilled water (one half gram to the ounce) is applied several times when the sty first appears it will usually cause the sty to be absorbed. It will not develop further, though this should never be used without proper advice or when the sty has progressed to any extent. If the sty is unusually severe or if one has had several of them, constitutional treatment, such as is advised for boil, should be employed. (See *Boils*.)

SUBINVOLUTION.—The natural contraction of the uterus after childbirth and the return of that organ to its normal size is known as *involution*. This process usually takes several weeks, during which time the uterus, which at the time of childbirth weighs in the neighborhood of two pounds, becomes reduced to its normal weight of about two ounces and from a postpartum length of something like twelve inches to its normal length of approximately two and one-half inches.

Subinvolution is the name given to a condition of *arrested* contraction of the uterus. The contraction has been interfered with and, therefore, is incomplete. The organ is softer than normal and there is danger of bleeding on account of the fact that the torn blood vessels at the site of the placenta have not been sufficiently squeezed down and closed by the contraction of the uterus. Even though there may not be any severe hemorrhage, there often is more or less bleeding over a protracted period if subinvolution is allowed to continue.

Subinvolution may be caused by the retention of small portions of the placenta, by displacements of the organ, adhesions, tumors, inflammation, failure to nurse the baby or, in some cases, sexual intercourse too soon after delivery. It is said also to come sometimes from resuming one's household duties too soon after childbirth. As a rule, however, a woman of good general condition, who is strong, healthy and normal in every respect, need have little fear of this condition occurring.

Treatment. The cause should be ascertained at once and removed if possible. No sexual intercourse should be allowed until the condition is corrected. Displacements should be corrected, and every means adopted to improve the general health. If the condition is the result of inflammation, adhesions, or other diseases a fast will be of great benefit. Observe Complete Fast No. 2, and follow it up with Fast-Breaking Routine No. 2, preferably with a full milk diet. In fact, a milk diet is doubtless the most effective means known for normalizing these parts. Even removal of the placenta or other foreign tissues will usually be accomplished through the vitalization of the organs from this measure. Cold hip packs also are of value.

Subinvolu-
tion

Subinvolu-
tion, Treat-
ment

Superinvolution, a rare condition, is excessive involution. The uterus becomes atrophied. Treatment is constitutional.

SUFFOCATION.—See *Asphyxia*, Volume VII.

SUMMER COMPLAINT.—See *Cholera*, Volume VII.

SUNBURN.—See *Burns*, also *First Aid in Accidents and Disease*, Vol VII, Sec. 5.

Sunstroke

SUNSTROKE.—Prostration and unconsciousness due to unusual exposure to the sunlight, especially exposure of the head. Persons of low vitality are more susceptible than those in good health.

The *symptoms* vary according to the intensity of the attack. In light cases there are severe headache, vertigo, faintness and exhaustion, sometimes insensibility. The skin is hot and dry. In severe cases the patient becomes unconscious almost at once, with noisy and rapid breathing, rapid pulse, irregular and tumultuous heart action and high fever. The temperature may reach 109 or perhaps 110 degrees. Sometimes convulsions supervene. The skin is hot and dry and the face red and congested. In these cases death may occur within a few hours. Children of poor vitality or persons addicted to the use of alcohol are especially subject to sunstroke. An occasional after-effect of the seizure is paralysis in some form—usually of the brain or the lower limbs.

Sunstroke, Treatment

Treatment. For emergency treatment see *First Aid in Accidents and Disease*, (Vol. VII, Sec. 5). Follow this by cold water douches or ablutions described therein. It will be necessary to adopt constitutional treatment to overcome the after-effects of the seizure and to enable the patient to regain strength and nervous vigor.

If a marked degree of shock is associated with the stroke, great care should be used in the treatment. Recuperation will be much more rapid if the patient be allowed to undergo a complete fast for several days. There will be no appetite, so while fasting the entire organism will readjust itself more rapidly than if the stomach be burdened with undesired food. Activity of the bowels is important and should be accomplished by means of enemas.

Remember that if at any time in the immediate treatment of sunstroke the temperature of the body is subnormal and the skin pallid, immediate measures should be chosen to restore active circulation. In such a case, warm applications may be made to the head while the legs and arms should be made warm by rubbing. Hot spinal packs will also be effective.

For several days after the stroke a daily neutral bath will be of great value for soothing and quieting the nervous system and also promoting moderately active elimination through the pores of the skin. This may be given in the afternoon, with a hot spinal pack, and Special Manual Treatments Nos. 1 to 10 given in the morning. The patient should drink water freely.

During the crisis of the heatstroke moderately cold water may be given as soon as the patient is able to take it; but as soon as the fever is reduced the water should be given hot. It is important that the patient have a plentiful supply of pure air and, if his strength warrants it, should be given an air-bath. This should not be attempted, however, if the air is too cold. It is essential in a case of this kind that too much treatment be not given. As the patient appears to be recovering from the shock, perhaps by the end of a week, the fast should be broken by Fast-Breaking Routine No. 1 and a milk diet adopted thereafter.

Sunstroke,
Crisis in,
Treatment

It is especially necessary to build up vitality and nervous strength in these cases. As the patient gains in strength he should gradually adopt a vitality-building routine suited to his condition, paying special attention to air-baths and dry friction baths, but avoiding sun-baths. For some time thereafter he should expose himself to the rays of the sun only gradually, if at all, until his normal vigor has been restored. In this caution reference is made to a too direct exposure; with the protection of ordinary clothes, especially orange colored and with cold wet cloths under the headgear, the patient should be out of doors and taking long walks as soon as he is able. Spinal packs and Special Manual Treatments should be continued, with more vigorous treatment, as the patient grows stronger.



The ice-cap, carefully applied, may be used upon the head with excellent results in cases of brain congestion and injuries, sunstroke, cerebral inflammations, headache and other conditions.

Suppuration

SUPPURATION.—The technical term for the formation of pus, a thick opaque fluid varying in color but generally yellowish white, consisting of a fluid serum containing white blood-corpuscles and bacteria. The production of pus is a process of elimination. When inflammation is present and the eliminated toxins are not quickly neutralized or removed, bacteria collect. The white blood-corpuscles must then destroy these bacteria. In the process many of the corpuscles lose their own lives. All this débris is collected to form the pus.

Examples of suppuration include abscesses, felons, carbuncles, boils and discharging wounds. Wounds, however, do not suppurate if the patient is in good health and if the injury is kept clean. The development of suppuration from inflammation generally indicates improper treatment. In any case, the presence of pus indicates the need for more strict eliminative treatment.

Suppuration, Treatment

Treatment. (For treatment for local collections of pus see *Abscess, Boils, Carbuncles, Sty*, etc.; for general suppuration see *Blood-Poisoning*, and *Pyemia*.) If the suppuration should be excessive, sunlight, ultra-violet rays, or color therapy (or, if none of these can be obtained, medical antiseptics) may be employed to advantage, as they assist in destroying the bacteria after removing the waste matter. The danger in using medical antiseptics is that they may be so strong as to destroy some of the healthy cells. Such antiseptics as iodine and mercury should not be used if anything else can be obtained. Plain salt-water often will be fully effective, and hydrogen peroxide in proper dilution may be used.

Swellings, Genital

SWELLINGS, GENITAL.—Swellings of the generative organs or in this region may be due to several causes. If in the groin they may indicate either a rupture (hernia) or a bubo. If there is inflammation and pain, the swelling is more likely to be from a bubo. (See *Rupture*, and *Bubo*.)

Swellings of the *scrotum* may result from rupture, varicocele, orchitis or epididymitis, hydrocele, or hematocele, and as complications of venereal diseases. Tuberculous and other growths also may cause swellings in the scrotum.

Swellings deep in the *perineum*, attended with great pain, may result from inflammation of the prostate gland or Cowper's gland, although swelling of the prostate generally is not recognized except through rectal examination.

Swelling of the *penis* occurs generally only in connection with some inflammatory process. Gonorrhea is a common cause. Balanitis, chancroid, or some of the manifestations of syphilis all may cause swelling of this organ. Another cause fairly frequent in youth is masturbation, especially when frequently repeated or violent. Sometimes in adults violent coitus, particularly when there is

disproportion between the male organ and the vagina in which considerable pressure is brought to bear upon the penis, this latter organ swells. In these latter two instances the swelling usually is edematous, resembling in appearance water blisters and lasts only a few hours or at most a day or two. In all cases the swelling is merely a symptom of a condition which requires treatment.

SUPRARENAL DISEASE.—Disease of small glands of internal secretion, one above each kidney (often called adrenal glands). (See *Addison's Disease*.)

Suprarenal
Disease

SWOLLEN GLANDS.—Any gland may become swollen, but this term usually is used to indicate an inflammation of the lymph glands. One or more glands may be affected. When several are involved, the technical term for the condition is lymphadenitis. (See *Glands, Inflammation of*, also *Lymphatic Diseases*.) Generally the inflammation ends in suppuration and the glands discharge pus on the surface of the body, either directly or through a canal known as a fistula (which see). Children are especially subject to swelling of the glands of the neck.

Swollen
Glands

The fundamental cause of swollen glands is always a toxemia. Inflammation and the pus discharge are the means adopted by the body to eliminate the toxins. However, many cases are complicated by the presence of syphilis or tuberculosis.

Symptoms. See *Glands, Inflammation of*; also *Bubo*; and *Lymphatic Diseases*.

If only one gland is affected it can be treated much the same as an abscess. If several glands are involved the treatment should be that advised under the heading of *Glands, Inflammation of*. If some general disease is present, this should receive the appropriate treatment. Operations occasionally are required in order to assist in bringing about free drainage, but rarely will be needed if the proper natural methods are employed. (For the treatment of chronic inflammation of the glands see *Lymphatic Diseases*; *Thyroid Gland, Diseases of*; also *Organotherapy*, under *Miscellaneous Treatments and Health Factors*, Vol. VI, Sec. 7.)

SYCOSIS.—See *Barber's Itch*.

SYNCOPE.—Same as *Fainting* (which see).

SYNOVITIS.—See *Joints, Diseases of*.

SYPHILIS (*Lues*).—Though this disease has lost much of its former virulency it nevertheless remains one of the most widespread diseases of the present day. Sometimes called "the pox," or indefinitely known as "blood poisoning" or "blood disease," syphilis is a specific, infectious, chronic disease which results either from inheritance or from immediate transference from an infected person.

Syphilis

While the origin of syphilis is shrouded in more or less darkness it is probably the oldest disease to which the human race is subject.

It was first described under its present name in the fifteenth century; but evidence of it has been found in the skeletons of prehistoric man and symptoms which hardly differ from those of the disease as we know it today are described in the ancient literatures of China, Mexico, Peru, Arabia, Greece, and Rome, as well as in the sacred writings of the Hebrews. Today it exists over the entire civilized world.

It has been claimed that the disease was originally contracted by the sailors of Christopher Columbus from the aborigines of the western world and brought to Europe and disseminated by them. But, apparently, this is not so, as proved by the facts stated above. It also is believed by some that the leprosy mentioned in the Bible was really syphilis.

Syphilitic
Infection

Until recently, however, the nature of the virus through which the disease is transmitted to others has been only conjectural, but it is now known to be a microorganism of a specific nature, known as the *Spirocheta pallida*, a microorganism that finds its way into the blood-stream and in this manner penetrates to all portions of the body. This germ is threadlike and spiral in shape, somewhat like a corkscrew.

Syphilitic
Infection,
Modes of

When infection takes place it does so through an abrasion of the skin or a break in the epithelial covering of the mucous membrane. As a rule the infection takes place through sexual intercourse, so the initial sore is to be found upon some part of the male or the female genitals. The responsible abrasion often results from violent or rough sexual intercourse, thus opening the door for infection. It is possible for the virus of the disease to be present in the genitals of a woman without infection taking place in the man, provided there be no abraded surface on the male genitals. Likewise should there happen to be a syphilitic condition in the man and no abraded surface in the female, in that case the woman will not become infected. Again, it is possible for a man to contract the disease from a woman who is not suffering from it but who has previously had intercourse with a man who is syphilitic, the unbroken condition of her mucous membranes being her protection, while the virus is present and capable of infecting the second man.

A fissure or a crack in the mucous membrane of the lip may become the site of infection when kissing an individual who is in the contagious stage of the disease. A scratch of the finger also may be the site of infection. This is especially true in the case of physicians and of midwives who are so frequently called upon to make examinations of the genital organs of women.

As regards the mode of infection it may be said that there are three to be considered. The first of these is the *direct* or *immediate* transmission, such as we have discussed, in which an abraded or cut

Syphilis,
Symptoms

Symptoms. Chancre, the first manifestation of syphilis, appears, at first, to be of a local nature; but it is followed in two months or a little longer by the constitutional symptoms which comprise secondary or general syphilis.

Syphilitic
Chancre

The *chancre*, if typical, is a sure sign of syphilis. It appears at the point of infection. In the male it usually is on the head of the penis or just below the head. Generally there is but one chancre, but in rare cases there may be more. Chancre may not take on its characteristic appearance for ten to fourteen days, in the beginning seeming to be trivial. It may be mistaken for a mere pimple, for when it appears at first it is in the form of a small round, hard, pimply-looking swelling, which increases in size for a few days, perhaps finally ulcerating. At first it is red, but later may become coppery, though it can be determined definitely whether or not the pimple is syphilitic by its association with some inflammation or soreness in the nearest lymphatic glands. If there is no evidence of such symptoms in adjacent glands the pimple is generally not syphilitic.

The typical sore, if unmixed with any other infection, is smooth, dry, hard, movable, painless and secretes little. The base of the sore is hard, resembling almost a piece of cartilage. When ulceration takes place the ulcerated surface is shallow, more or less circular or oval in shape, and has a hardened edge, or induration. If mixed with chancroid infection the sore at first has the nature of a chancroid, later becoming hardened at the base and assuming the other characteristics of chancre.

A chancre may take on other characteristics, also. It may develop into a large sore or ulcer; it may become inflammatory and be attended by excessive inflammation; it may slough, allowing parts of the flesh to fall away; it may become gangrenous, with a tendency to mortification; or it may become a phagedenic chancre, with extensive eating away of the flesh parts. As a rule a simple chancre, uncomplicated, heals spontaneously in about five or six weeks.

Syphilitic
Bubo

A *syphilitic bubo*, which is common, develops in one of the lymphatic glands nearest the chancre soon after the latter appears. This, naturally, is in the groin, adjacent to the genitals. A bubo of this sort is painless, hard, and movable. In chancre of the lip or the tongue the glands beneath the angle of the jaw are affected; in chancre of the throat the glands of the neck are affected; in chancre of the hand or of the arm the glands in the armpit will become affected.

Syphilis,
Secondary

Secondary syphilis, or the second stage of syphilis, marks the beginning of the constitutional phase of the disease. It appears from one to three months after the appearance of the chancre.

In suspected cases of syphilis, if there are none of the symptoms which show the development of the secondary stage then it is probable that the case is not one of syphilis, but of some other condition. During the secondary stage the skin and the mucous membranes are subject to various abnormal conditions, among which are skin eruptions, ulcerations, mucous patches and congestions. The lymphatic glands throughout the body are prone to swell. In some cases there is an elevation of temperature at the beginning of this stage, and there may be general debility, loss of weight, pains in the joints, bones and head, and more or less mental depression. The skin, in the earlier days of the secondary period, assumes a peculiar hue resembling copper with a somewhat dirty aspect.

Later an eruption appears which may somewhat resemble measles, though paler, or it may resemble and be mistaken for other skin diseases. This eruption varies from a simple roseola to severe ulcerations and extensive crusting. Except in the more severe eruptions there is little pain or discomfort, though generally there is slight itching to be felt. The eruption often takes the form of blotches, slightly elevated above the normal skin. These are made up of small pustules containing a slight amount of fluid which soon dries, leaving a branlike condition which can be rubbed off. This first crop of pustules is soon followed by a second and larger crop, producing a thicker crust and a larger amount of the branny substance. If this is removed small ulcers often will be found beneath.

Syphilitic
Eruption

Another form of the skin eruption resembles smallpox vesicles, which dry up, leaving scabs. Still another form of eruption is like scales which pile up one upon the other. In this form the eruption begins by the development of copper-colored blotches which become scaly. The scales are replaced by scabs which fall off and reveal shallow ulcers with copper-colored edges. This latter is a stubborn affection.

Of the more severe manifestations of the secondary stage of syphilis, those affecting the mucous membranes are of great importance. These are ulcerations or patches which affect the mucous membranes of mouth, throat, lips, inner sides of the cheeks, tongue, tonsils, soft palate, uvula, pharynx, nasal cavities, genital organs, anus, and sometimes the eye ("mucous patches"). These ulcerations are highly destructive, forming gaping ulcers and eating deeply into the submucous tissues. Such lesions, when found in the rectum or the anus, sometimes are mistaken for cancer, fistula, or hemorrhoids.

Syphilis,
Mucous
Patches of

In the mouth and throat they always are most severe in those who use tobacco or alcohol, for the irritation produced by these

articles upon the mucous membranes, in addition to their weakening influence upon the body, makes these parts particularly susceptible to the ravages of the disease. In the secondary stage of syphilis the hair of the head is likely to become loosened and to fall out. The eyebrows and the beard also may be lost.

Syphilis,
Tertiary
(Third-
Stage)

Tertiary syphilis, or the third stage of syphilis, supervenes when the disease is not eradicated in its earlier stages. We already have seen that the second stage of the disease affects chiefly the skin and the mucous membranes. The third stage affects, in addition, the deeper structures of the body, including vital organs, tendons, muscles, bones, periosteum, nerves, brain, and spinal cord. In this stage we find the horrible conditions which so often characterize severe cases.

Syphilitic
Gummata

No part of the human anatomy is immune to invasion by the poison of this affliction. This stage also is commonly marked by the formation of soft tumors, called *gummata*, which are peculiar to this disease and may be found in the connective tissues. When on the surface of the body they form gummatus ulcers. They produce degeneration of the tissues and terminate in scars. When they involve any of the vital organs they may cause death. They may attack the heart, lungs, kidneys, liver, spleen, stomach, and intestines.

Among the bones, those of the face and the nose often are the first to be attacked. These are eaten away little by little and the disease spreads from them to those of the entire body, producing pains of every kind and degree. These pains reach to the very marrow, giving the feeling that the bones are being bored into. They are excruciating, as a rule, and much worse at night. When the bones are near the skin, as the frontal bone of the skull or the shin bone, small syphilitic tumors, or nodes often form, giving the appearance of hard cancerous growths.

Syphilis,
Tissue
Destruction
in

The nails and the hair may be affected, becoming hard and brittle, often ulcerated and sometimes destroyed. The eyes and the ears may be attacked, producing blindness and deafness. The blood-vessels also are likely to be affected, the walls becoming weakened and, perhaps, after a lapse of many years, causing an attack of apoplexy from the rupture of an artery.

The brain and the spinal cord may be directly affected or may be affected indirectly through affections of their protecting membranes or their blood-vessels. Affections of these parts may produce epilepsy, hypochondria or dementia, with occasionally suicide as the result. When the membranes of the brain are affected there is chronic and severe headache. Paralysis, paresis and locomotor ataxia frequently result from syphilis, generally many years after the disease was supposed to have been cured. In fact, at least 90

per cent. of all cases of locomotor ataxia are of syphilitic origin. Syphilis is also one of the most common causes of insanity.

These serious mental and nervous affections are said to be found only in countries where mercury and other antisyphilitic drugs are employed. This is important to note.

Hereditary Syphilis, to quote a well-known writer, is "a painful illustration of the Divine law which links the sins of the father with the sufferings of future generations," for, as we have previously stated, this disease is exceptional in the fact that it can be directly transmitted to one's offspring. Opinions differ as to whether it is capable of being passed down to the third generation. Most authorities claim that it is not so continued, though there is no doubt that its results, in the form of certain impairments of health, may continue for many generations.

Syphilis,
Hereditary

Direct transmission of the disease through an infected male parent is called spermativ or germinative infection, the body of the father being so saturated with the poison of the disease that even the sperm cells are charged with it. If the mother be suffering from the disease in its constitutional form, the ovum may contain the virus, the fetus then being naturally syphilitic. In either case abortion is likely to take place; in fact, it almost invariably does take place. But as time goes on there is a lessening tendency toward abortion, or toward diseased offspring. In a typical case of syphilis in a woman who frequently becomes pregnant, the history usually is that of abortions taking place early in the first of these pregnancies, later taking place at a more advanced stage of the pregnancy, until finally a pregnancy may go on to the birth of a still-born child, or to one who is living at birth but who quickly dies, though a considerable number bear viable infants who then have inherited syphilis, usually.

Syphilis,
Hereditary,
Signs and
Symptoms

A mother who contracts syphilis during a pregnancy also may infect her unborn child through the blood supply, though if she contracts the disease near the end of her pregnancy the child may escape the disease. The "Colles' Law" records the fact that the mother of a child made syphilitic through infection from the father, appears to be free from manifestations of the disease and immune. But it may be possible that the woman in a case of this kind may have the disease in a modified or a latent form and that in time she may develop symptoms of the tertiary stage. Sometimes parents who have had syphilitic children have had normal children later on, the disease either having been obliterated or become, for the time, inactive.

The majority of infants born with hereditary syphilis, and who live, may not show any external evidences of the disease at the time of birth. They may appear to be perfectly normal. But at the end of

a few weeks, or at least within three or four months, symptoms of the disease will begin to show. A large percentage of these infants die. It has been said that occasionally hereditary syphilis will not show itself until puberty; but it is probable that in such cases early symptoms were overlooked or not recognized.

Hereditary syphilis frequently is accompanied by some form of physical deformity. Disorders of the bones and of the eyes are common. The teeth, especially the upper front teeth are characteristically notched (called *Hutchinson's teeth*) and thus become diagnostic of hereditary syphilis. The nervous system and the brain frequently are affected, producing a state of mental impairment which may range from moderate feeble-mindedness to complete idiocy. Epilepsy also may result in these cases.

The earliest symptom of hereditary syphilis in an infant usually is mouth breathing, due to diseased mucous membranes in the nose. There is also sniffing and more or less discharge from the nostrils. The parents may think that the child has a head cold. (However, far more children who have no syphilitic taint than do, have these three symptoms.)

This condition is followed after a time by a sallowing of the skin, a loss of flesh, emaciation and by a generally dried-up or weazened appearance of the child. The face resembles that of a miniature "old man." Various skin eruptions may now occur and ears, glands, genitals, vital organs, nails, hair and other parts may become involved. There seems to be a tendency toward tuberculous affections. The severity of the inherited form seems to depend upon the degree of infection of the parent or parents at the time of conception and usually the severity of the symptoms decreases with each succeeding child. There is no primary stage, or stage of chancre, in inherited syphilis.

Immunity to syphilis is said to follow one attack of the disease, though this is disputed by some authorities. Another disputed statement is that hereditary syphilis offers future immunity.

The Wassermann Blood Test for Syphilis is of undoubted value as a means of diagnosis of the disease, but it is not infallible. A positive reaction is not conclusive evidence of the presence of the infection, for a pronounced toxemia and some other conditions will produce the same reaction. A negative reaction does not always mean freedom from the disease. Several negative reactions may be needed in order to feel satisfied of the absence of the virus of syphilis. Spinal puncture and examination of the withdrawn fluid is a more certain means of diagnosis in doubtful cases, but this is one examination which the writer cannot approve. If any part of the body should be inviolate it certainly is the spinal canal, naturally protected by surrounding bone.

Syphilis,
Immunity to

Syphilis,
Wasser-
mann Blood
Test for

If desired, a solution of permanganate of potash may be used as an antiseptic, but it should not be used in too great strength. Many of the antiseptic and bactericidal solutions used are made too strong and easily may have a destructive effect upon the already abnormally sensitive tissues. As a rule the chancre, if kept clean, will disappear in a reasonable time as a natural process, especially when intelligent constitutional treatment is instituted.

Local treatment of the skin affections of the *second and the third stages* of the disease may be given and similar preparations to those used in the treatment of the initial sore may be employed. Scrupulous cleanliness is essential. Local wet compresses may be kept on the affected parts. In many cases salt water will prove a satisfactory application. But remember that all cloths, sheets, towels and clothing used by a patient should be carefully handled, not only to avoid inoculating others with the disease, but also to avoid starting up new sores on the person of the patient. Thorough boiling of all such is necessary. If an antiseptic solution is used for cleansing and sterilizing the syphilitic lesions of the skin, or as a mouth wash for mucous patches or ulcers, it should be mild enough not to do harm to the tissues. The same caution applies to solutions used upon the genitals or the rectum.

Activity of the skin is to be encouraged for its value as an eliminative factor. Daily air-baths and the wearing of as little clothing as possible are to be recommended. Dry friction of the skin by means of rough Turkish towels or flesh brushes is valuable, except in locations where there are open sores. A wet-sheet pack, used once in twenty-four or forty-eight hours, is good treatment. If the patient is vigorous, dry hot-air or steam baths once or twice a week may be recommended. A cabinet bath is extremely satisfactory for this purpose. An electric-light cabinet bath probably is of greater value than any other sweating procedure except exercise, or exercise combined with a sun-bath. A warm shower bath for an hour or more daily is also valuable. If available, the blood-washing or Marathon bath may be used two or three times a week, especially when on the milk diet, advised further on.

Fresh air and exercise are important in the treatment of syphilis, because of their direct influence in cleansing the blood stream and because of their value in increasing the vitality of the patient, who should live and sleep out of doors as much as possible. If he is employed in some confining work it may be difficult to secure enough open-air life, so this will increase the importance of strict treatment along the other lines recommended. At least he can have plenty of fresh air while not engaged in his regular work. As to exercise, a small amount of violent exercise is not as valuable as a considerable amount of more moderate activity, which will tend to induce free

Syphilis,
Local Skin
Treatments

Syphilis,
Sweat Baths

perspiration. One should not exhaust oneself; but the more one perspires the better it is for the purifying of the blood-stream. Walking at a fair gait for five to ten miles, if possible, will be of great value.

Attention should be given to the activity of the bowels, for constipation will impede progress in the treatment of the disease. Constipation may be overcome by proper diet, exercise and water drinking, aided by the use of enemas when needed. Or bran and mineral oil may be used to keep the bowels satisfactorily active, when on a solid food diet.

The drinking of water in large quantities is a potent factor in treatment, so should be practiced, irrespective of diet, exercise, fasting or any other procedure. Distilled water is to be preferred, but is not a necessity. The important thing is to consume plenty of good, pure, wholesome water. Going to any of the "spas" or "springs" is not a necessity, provided one is willing to use plenty of water at home, internally, externally and "eternally!" It sometimes seems as though the benefit received by those who do go to the springs is due to a certain extent to the fact that they are under constant medical supervision and, having spent money and time in the treatment, feel that they *must* do as they are told in regard to the use of large quantities of Nature's drink.

In the matter of diet, it may not be necessary to follow any specially restricted routine, except for fasting. However it is important to avoid overeating, for one should consume only the amount of food actually needed by the body. Two meals a day often are better than three meals. Fresh acid fruits are good, but tea, coffee and meat must be used sparingly or not at all. If one is able to get a great deal of exercise and if he pays proper attention to bathing, wet-sheet packs, steam, hot-air or electric-light baths and the other measures recommended, the giving up of meat as part of the diet is not so highly important, so a moderate amount may be eaten; but in severe cases it would be better to exclude it entirely from the diet. Salt and other condiments, spices, alcohol, white-flour products and commercial sugar are positively prohibited.

Syphilis,
Diet in

The best plan in starting the treatment is to fast for ten days to two or three weeks if possible, using Complete Fast No. 3. Plenty of water should be drunk, and an enema used about once a day for one week, then once in forty-eight hours. Then follow the fast with Milk Diet No. 1 for six to eight weeks, after which repeat it and again follow this treatment by the milk diet. This should be repeated as often as necessary to get the best results. If the patient is much underweight and is weak, it may be necessary to reduce the length of time for the fast to a week or even less; but if the longer fast can be taken it will be better, other things

Syphilis,
Fasting in

being equal. When shorter fasts are taken they are to be repeated more frequently, possibly every four or five weeks, provided the general physical condition of the patient will allow this.

Syphilis,
Milk and
Fruit Diet in

If the full milk diet cannot be taken, a Milk and Fruit Diet may be substituted (Nos. 1 to 3), or a Combination Milk Diet (No. 2, 3 or 4). Or if milk cannot be taken at all or if good milk cannot be obtained, solid food may be employed. But milk is to be preferred in all cases where it can be taken.

When using solid foods the suggestions given above should be adopted. But be sure to drink plenty of water, at least three to four quarts a day. In many cases a satisfactory routine would be provided by Fruit and Nut Diet No. 1 or by Cereal Diet No. 1. Variations in diet may be necessary in individual cases; but the routine specified will be found of great value. All of these diets should be faithfully followed for a protracted period.

Stimulation of the nervous system by spinal invigoration is of great value. Some or all of the Back and Shoulder Movements illustrated in Volume VI (Nos. 1 to 42) will be of benefit. Special Manual Treatments Nos. 11 to 16 are especially recommended, the hot towel to be used to the limit of the patient's tolerance. If no attendant is available Self-Applied Exercise Movements Nos. 1 to 6 are advised. Beneficial effects have been reported as the result of daily scrubbing of the skin with a stiff brush and cold water, using a moderate amount of soap for cleansing purposes when necessary.

Syphilis,
Personal
Hygiene

In connection with all of these measures the patient should make it a practice to retire early and secure plenty of sleep. He should avoid all exciting amusements and in every way should observe strict personal hygiene and sanitation. There should be no relaxation of the treatment just because the patient begins to feel better, for it is characteristic of this disease to seem to disappear at times, only to break forth again with even more violent manifestations.

Before the real nature of syphilis was understood it was natural for the victim to believe himself to be cured when the symptoms subsided, only to be horrified at subsequent and more serious developments. It takes many months to eradicate the poison of the disease, if it is to be eradicated. It must be remembered, however, that these methods of treatment are powerful in their influence in clearing the blood of impurities and poisons, in raising the vitality and the index of chemicals in the blood and that in the treatment of this disease they can do a great deal of good. The fact of a permanent cure is hard to establish, so one never should take chances.

The question of marriage by a person who has had the disease is a vital one. The diagnosis of syphilis by means of the Wasser-

mann blood-test or by spinal puncture and examination of the spinal fluid is practiced all over the civilized world. Physicians all agree that the subsidence of all symptoms and several negative Wassermann reactions are necessary before one can be said to be at all easy as to the cure of the disease. Hence marriage should not take place until long after all tests show freedom from the virus of syphilis.

In supposedly cured cases it is a good plan to undergo, after a few months of freedom from all symptoms, a fast of ten or more days and a course of milk diet and occasional sweating, for a drastic purification of the body. Following such a treatment the cells and the tissues of the body will be largely built up anew and the patient will feel thoroughly invigorated. A similar fast once or twice each year will be of value, whether or not the milk diet is used afterward. If the disease is really cured healthy offspring may be expected. It also is good practice, even if only for the peace of mind of one who has been afflicted with syphilis, to have a Wassermann test made once or twice a year at least for two or three years.

Syphilis,
Repeated
Fasts

If men and women would abstain from promiscuous, illegal intercourse sexual diseases might be prevented or at least greatly reduced in number. Prophylactic treatment immediately after coition also, in large measure, will limit the spread of sexual diseases. In fact, in the army of the United States it is required and non-observance of this regulation is severely punishable.

While this work deals with the drugless treatment of diseases, nevertheless it may, in discussing this terrible disease, mention the use of mercury in the treatment of syphilis. Of late, mercury treatment has been largely supplemented by the use of injections of salvarsan ("606," as it is known to the general public) and by neosalvarsan (new salvarsan, "914"). Certain bismuth preparations also are now used extensively in the treatment of the disease.

Syphilis,
Injections for

The use of mercurial preparations is spoken of here because it undoubtedly is true that this drug, if used too freely or in too strong doses, will produce symptoms very similar to those of the disease being treated. Many persons have become the victims of chronic mercurial poisoning, so have been harder to handle in the treatment of syphilis.

In health, mercury never belongs in the body, hence should not be necessary in the treatment of syphilis or any other disease. The same may be said of salvarsan (a preparation of arsenic), for the remedy itself or improper technique in its use may produce severe symptoms. Medical authorities, however, have agreed that attention to the general health is a large and important factor in the treatment and ultimate cure of the disease. There can be no doubt that the most important matters in the treatment of syphilis

are the thorough cleansing of the body by general elimination and by the adoption of blood-purifying measures.

Syringo-
myelia

SYRINGOMYELIA.—An insidious, chronic disease condition characterized by the formation of a cavity or cavities in the spinal cord or dilatation of the central canal of the cord. Acute infectious diseases and injury are mentioned as causes. Eighty per cent. of the cases occur between the ages of ten and forty years, most of them in early adult life.

Symptoms. There naturally is compression of nerve cells, producing various symptoms, chiefly a progressive muscular atrophy and more or less loss of sensibility as to touch, temperature and pain. There sometimes are tingling and some pain in the early stages. Later there is loss of sensation of heat, cold or pain, the extremities being usually cold, though sometimes just the opposite. There frequently are skin inflammation and eruptions. Other disturbances vary so widely they cannot be classed as definite symptoms. This disease differs from ordinary muscular atrophy in the attendant loss of sensation. A spinal tumor produces the same symptoms, but its development is more rapid. Syringomyelia may extend over fifteen or twenty years, terminating in death.

Syringo-
myelia,
Treatment

Treatment. Constitutional improvement only is of avail in the disease, by building up the vitality, improving the circulation and purifying the blood. However, natural methods of spinal stimulation also are recommended, using daily Special Manual Treatments Nos. 1 to 10 or, if the patient is strong enough, Back and Shoulder Movements Nos. 1 to 16. Great care should be used to avoid too much treatment. A general fasting and dietetic routine similar to that advised elsewhere for locomotor ataxia or paralysis should be followed, with special emphasis upon such exercises as may be suited to the strength of the patient.

TABES DORSALIS.—See *Locomotor Ataxia*.

Tachycardia

TACHYCARDIA (*Heart-hurry*).—The technical term for an abnormally rapid heart-beat, especially when this occurs in paroxysms. It is a symptom rather than a disease and may be produced by many abnormal conditions beside actual heart disease. Some of the most frequent causes are the excessive activity of the thyroid glands, excessive use of tobacco and the presence of gas in the stomach. It may also be produced by nerve irritation of either mental or physical origin, or by various diseases of heart or lungs.

Being only a symptom, the *treatment* of tachycardia will depend upon the abnormal condition causing it. If proper treatment is taken for the causative condition the tachycardia should soon subside. Better results will be obtained if the patient avoids fear. Rapid heart-action is not especially dangerous. As long as the

causes are being removed (over-eating being the usual chief), it is bound to improve. Mental and physical relaxation, combined with slow, deep breathing, will be found helpful in bringing about immediate relief. Cold compresses over the heart may be employed in extreme cases. (See also under *Heart, Diseases of*.)

TALIPES CALCANEUS.—A form of clubfoot in which, owing usually to paralysis of the muscles of the calf, the heel alone can touch the ground. This deformity may be congenital.

Talipes
Calcaneus

Treatment for this disease should be substantially the same as in other varieties of clubfoot (which see). Another variety of this disease is *Talipes equinus*, more generally known by the name of *Pes equinus* (which see). The special movements advised for the treatment of *Pes equinus* will also apply in this case together with the same constitutional treatment, though special attention should be paid to Leg and Foot Movements 12B instead of 12A.

TAPEWORM.—See *Intestinal Worms*.

TEETH, DISEASES OF.—See page 3744, also Vol. V, page 2194.

TENESMUS.—A painful and frequent desire to empty the rectum or bladder, accompanied by straining, but with little results on account of the spasmodic contractions of the sphincter muscles. This is a symptom, not a disease in itself. Of the bowel, it is especially marked in cases of diarrhea, cholera and dysentery. It may also occur after taking a strong purgative, following the elimination of most of the fecal matter. Of the bladder, it sometimes occurs when the bladder is inflamed or when the prostate gland is enlarged, irritated, acutely congested, or inflamed. Tenesmus is much more often located in the rectum or the intestines than in the bladder.

Tenesmus

Treatment. The treatment of tenesmus naturally will depend upon the cause. The particular disease which causes the straining should be treated according to the directions given under its own heading. (See *Bladder, Diseases of*; *Cholera*; *Dysentery*; *Intestines, Diseases of*; *Prostate Gland, Inflammation of*; and *Rectum, Diseases of*.) For immediate relief a hot sitz-bath or hot perineal compresses will be found helpful. These may be continued as long as necessary to secure relief, but should be followed by a brief application of cold. Often hot rectal irrigations will give prompt relief, in cases of tenesmus of the bladder as well as the rectum. Drinking hot water and taking hot enemas also will be helpful; but these will almost certainly be a part of the treatment for the causative condition.

Tenesmus,
Treatment

TENIA.—See *Tapeworm* under *Intestinal Worms*.

TERATOMA.—A congenital tumor containing various forms of organic tissue, such as hair, teeth or other matter; usually harmless, but may be removed if troublesome. (See *Tumors*.)

Teratoma

Testicle,
Atrophy

TESTICLE, ATROPHY OF.—Atrophy or shrinking of the testicle sometimes results from orchitis, particularly if it be a complication of mumps; but more often it is caused by an injury to or an impairment of the spermatic artery, perhaps from a rupture or a ligation, or a tying of that artery. It results less frequently from an epididymitis, from pressure from a badly fitting truss, from rupture or stricture of the vas deferens, or from sexual excesses or abuses. Varicocele may cause the impairment, softening the testicle down and causing a tendency toward its shrinkage. Attention should be given to any of these causes, if found. The persistent taking of cold sitz-baths, local cold wet packs, or alternate hot and cold wet packs, with a general building-up routine is recommended. Treatment given for diseases of the testicles will be of benefit also.

TESTICLES, DISEASES OF.—See *Testicle, Atrophy of* (above); also *Epididymitis, Hydrocele, and Orchitis*.

Testicle,
Unde-
scended

TESTICLE, UNDESCENDED.—In the strict sense, this is not a disease, but an abnormal condition. There is no treatment for it except in certain cases when it can be remedied by surgical means. Normally, from their first position in the abdominal cavity, the testicles descend about a month before birth through the inguinal rings to their permanent position in the scrotum. In some cases this does not take place until after birth, in others this descent does not take place at all. In these latter cases the testicles generally are retained in the abdomen, though they may be lodged in the inguinal canals, or they may even be found lodged in the tissues of the upper thighs.

All of these conditions are due, as a rule, to imperfect or arrested development of the spermatic cord. Although in some instances the procreative power of the individual may not be impaired by this malposition, more often when the testicles are retained in the body they fail to develop properly because of the pressure upon them or because they share in the lack of development. In one way or another this pressure prevents the normal function of creating the sperm cells and sterility is the result. Parents should not be concerned if their boy or boys have undescended testicles for a few years. The testicles sometimes descend as late as puberty, or even the age of eighteen.

Tetanus

TETANUS (*Lockjaw*).—An acute infectious disease caused by invasion of the tetanus bacillus, whose toxins spread with the blood circulation throughout the body. Tetanus usually develops from eight to twelve days after infection. This may take place from a cut, through a puncture wound, as from a splinter or a nail or through an open sore. The tetanus bacillus is found chiefly in contaminated soil, hence may reach a wound from any object that has been in contact (especially long contact) with the soil.

Symptoms. The first manifestation of the disease is a stiff and tensed condition of the muscles of the jaw, sometimes making it impossible to open the mouth. Due to the tense condition of the jaw muscles, swallowing becomes difficult. Pain is felt in the nose and the throat. The masticatory muscles are affected with involuntary spasms and these seizures involve the muscles of the neck and the throat. This spasmodic attack gradually involves other muscles of the body until breathing is seriously affected. The temperature then rises and the patient perspires freely. All the parts affected become rigid as iron and this extreme tension causes excruciating pain. Unless promptly treated in its early stages tetanus often is fatal. The mortality is high, though of late treatment has apparently been more successful.

Treatment. The treatment of this disease must be prompt and vigorous. One must realize the existence of an extraordinary amount of poisons in the blood in order to produce such extraordinary symptoms.

Tetanus,
Treatment

If it is possible to learn the nature of the disease before the violent spasms characteristic of this disorder have made their appearance an early excision and cauterization of the wound will sometimes check the progress of the disease. Medical men advocate a specific antitoxin for tetanus and recommend its use as a prophylactic, after any suspicious wound. But its use for prophylaxis certainly should not be necessary if one would begin proper treatment as soon as a wound begins to give the slightest trouble indicative of infection. The immunizing or curative effect of such treatment can never be proved. If a patient survives he might have anyway; and if he fails to develop the disease after treatment he might have been equally free from it without treatment. Usually if one is careful thoroughly to cleanse any wound, by ordinary soap and hot water, there will be no danger of infection.

The fact that the patient perspires freely indicates that the toxins of the disease are being eradicated through this channel. Therefore a hot-blanket pack or a neutral bath of an hour or more, gradually increasing the temperature towards the end of the bath will be most effective in inducing copious perspiration. If this treatment can be given in the beginning, so much the better. Steam and electric-light baths are of great value. If a high fever develops, however, a cold wet-sheet pack will be more suitable than a hot-blanket pack or other hot application; or, if the vitality is low, abdominal packs should be used as suggested, instead of the packs to the entire body.

Hot packs to the spine may be advised as a means of inducing relaxation. In connection with this, Special Manual Treatment Nos. 1 to 10 may be given. Remember that active elimination is

the keynote of the treatment. If necessary, a wet-sheet pack should be repeated at intervals of three or four hours or in some cases even more often, each pack being allowed to remain for one to two hours, or longer. Sometimes ice or ice-water compresses to the spine bring more prompt and complete relaxation. It is absolutely necessary that the patient be kept in the open air or be placed where he can secure a supply of air equal in quantity and purity to that out of doors.

It is insisted that the patient fast from the very beginning. The fast, together with free drinking as soon as the patient can take water, should be continued until all symptoms have disappeared. A milk diet is recommended to follow the fast as a means of rapidly building up vitality and strength. Full enemas should be used, giving them hot in the beginning and cold (from 70 degrees to 85 degrees) when the temperature is very high. In some cases of extreme gravity artificial respiration is necessary. When the patient begins to recover, a general vitality-building routine including sun-baths or ultra-violet ray baths should be selected and followed persistently.

Tetany

TETANY.—A muscular spasm marked by continuous tension or contraction, affecting especially the extremities and occurring intermittently. It is a symptom which may accompany both acute and chronic diseases. Though it may occur at any age, it occurs most commonly in children, and especially in infants, who have rickets or worms, but it may be due to gastric and intestinal troubles, and alkalosis—(deficiency of calcium salts); or it may accompany or follow typhoid or other exhausting or infectious diseases, or the removal of the parathyroids. An epidemic form (rheumatic tetany), in which the symptoms are acute, occurs chiefly in winter. The fundamental causes in all cases are wrong feeding habits and poor general hygiene which produce a condition of toxemia and nutritional unbalance that cause nerve irritation, defective nutrition and nerve supply to the affected muscles.

Tetany, Symptoms

Symptoms. Tremors and spasms first in the hands (usually), later affecting face and trunk and sometimes the laryngeal muscles; and increased irritability of the motor and sensory nerves to electrical and mechanical stimuli. The hands are contracted into the position similar to that used for holding a pencil, but the thumb often is drawn into the palm. Sometimes only the hands and feet are involved.

Tetany, Treatment

Treatment. When tetany occurs as a result of, or in conjunction with some other disease the chief treatment should be directed toward the latter, but the local measures advised below should also be used. If the tetany occurs independently, as it occasionally does, the following measures are indicated:

Alternate Fast No. 5 is the best to use, but the initial fast should be of two or three days' duration. Enemas should be employed daily while fasting and as needed between the fasts. If the patient is much reduced in weight and vitality, acid fruit juices may be permitted in addition to water. The diet between fasts should be Milk Diet No. 3 or one of the Milk and Fruit Diets. Alternate hot and cold compresses may be applied daily, followed by general bodily manipulation, giving special attention to the spine and the affected muscles, the muscles being massaged and stretched. The patient should make every effort to relax. To assist him in this a neutral immersion bath of 98 degrees F. may be given daily for one hour. Four or five hours should elapse between the manipulation and the bath, the former being given in the morning and the latter in the afternoon. If the muscular contractions are severe, hot compresses may be applied to the affected muscles as well as to the spine preceding the manipulation.

A general vitality-building routine suited to the strength of the patient should be carefully adhered to, but over-exercise should be carefully avoided. If the tetany is acute, complete rest may be necessary. For the acute rheumatic tetany a strict fast or a fruit diet for five to seven days would be better than the progressive fasting. Eating is to be resumed gradually, employing a diet largely of raw foods, chiefly of fruit, vegetables and some form of sour milk. Salad Diet No. 5 or 6 would be excellent for a while.

TETTER.—See *Eczema*, and *Herpes*, also *Skin, Diseases of*.

THERMIC FEVER.—Same as *Sunstroke* (which see).

THINNESS.—*Emaciation*.

THREADWORMS.—See *Intestinal Worms*.

THROAT, DISEASES OF.—See *Croup*; *Hoarseness*; *Larynx, Diseases of*; *Pharyngitis*; and *Tonsils, Diseases of*.

THROMBOSIS.—See *Embolism*.

THRUSH (*Sprue*; *Parasitic Stomatitis*).—A form of stomatitis characterized by white patches upon the mucous membrane of the mouth, chiefly affecting young babies. It is supposed to be due to a vegetable parasite. In severe cases there is a red and excoriated condition of the skin about the anus. The disease is said to arise from dirty nipples or other uncleanness. Strict cleanliness is essential. (See *Mouth, Inflammation of*, for treatment.)

Thrush

THYROID GLAND, DISEASES OF.—Goiter and exophthalmic goiter (which see) have already been discussed in this volume. There remain for consideration two other diseases, known as Cretinism and Myxedema, disordered metabolic processes due to a deficiency in the function of the thyroid gland. These diseases are practically identical, though when they occur in childhood, they are termed "cretinism," in later life "myxedema."

Thyroid
Gland Dis-
eases

Thyroid
Gland, Dis-
eases of,
Cretinism



This drawing shows the characteristic appearance of a child suffering from cretinism caused by thyroid gland deficiency. The dull facial expression is characteristic and the wide open mouth is caused by the thickened tongue.

Cretinism is chronic but curable condition commencing in infancy, characterized by tardy development, both physical and mental. Growth is abnormally slow, the mental faculties remain inert, the features are coarse and flaccid, with a vacant expression, the child is stupid, the skin is harsh and dry, the hair exceedingly thick and coarse, the tongue is large, thick, and generally protrudes slightly between the lips. The head is large, the neck short, the breast flat, the hands and feet peculiarly shaped and spadelike; there is pot-belly, the face is broad and

puffy, the eyes wide apart and the mouth kept open, allowing saliva constantly to dribble. The limbs are short and podgy. By the time the child reaches its teens its development averages but half that of a normal child. The condition is due to deficient development of the thyroid gland.

Thyroid
Gland, Dis-
eases of,
Myxedema

Myxedema is due to retrogressive changes taking place in the thyroid gland; it rarely appears before the age of thirty, and its advance is slow and protracted—so much so that the signs and

symptoms appear insensibly and from no apparent cause. They take the form of peculiar mental and physical changes. The first signs are a thickening of nose and lips and a flaccid condition of the cheeks. The features become coarse and the expression of the face vacant. There is a characteristic swelling of the subcutaneous tissues resembling edema, but it does not pit on pressure. It greatly increases the bulk of the patient and causes a generally changed appearance. The eyelids are puffy and drooping. The skin of the face takes on a yellowish tint, with red patches on the cheeks—the so-called “strawberries and cream” appearance. The skin is rough and dry. The hands and feet are large and flat, the memory is defective, the speech slow and muffled and there frequently is headache. The pulse is slow and the patient is always cold. This physical deterioration gradually extends to the entire body until the victim becomes a coarsened and vacant replica of his former self.

Treatment. The treatment of these diseases is designed to promote nutrition and a better general condition of the body. It is barely possible that in some cases, through appropriate measures, the functions and health of the thyroid gland may be restored, in a measure, with some improvement in other respects. Aside from this possibility, however, general constitutional treatment for purifying the blood and building strength and vitality will at least mitigate the symptoms even though they will not eradicate the disease.

Feeding the patient on either the dried or fresh thyroid gland and other internal secretion glands of sheep cannot well be omitted if best results are to be obtained.

In the case of *cretinism* special efforts should be made to have the child play out of doors, to enjoy wholesome, nutritious though simple foods, taking air-baths, sun-baths, friction baths and any other natural means to promote the general health. In some cases a milk diet would be of great value, preceded by a fast of one or two days, or Partial-Fasting Routine No. 1 or 4 for two or three days.

Myxedema is even more likely to be curable than is *cretinism*. In adults it usually is an acquired condition. Since it is not due to any congenital defects, there is greater possibility of improvement.

In atrophy of the thyroid gland, constitutional treatment often will arrest the degenerative processes and, by restoring wholly or in part the functions of this organ, bring about recovery. Improvement in the circulation is necessary, so a general eliminative treatment is essential to remove from the body the mucus-like substance with which the inactive tissues seem to be infiltrated.

Thyroid
Gland, Dis-
eases of,
Treatment

Thyroid
Gland, Dis-
eases of,
Myxedema,
Treatment

In many cases of myxedema, therefore, an extended fast, such as indicated in Complete Fast No. 2, is to be recommended. The length of this will depend upon the weight and strength of the individual. It is to be broken with an appropriate fast-breaking routine determined by the duration of the fast. A milk diet thereafter is especially necessary rapidly to build up vitality and strength. It is important, also, to keep the alimentary canal as thoroughly cleansed as possible. Enemas usually will be necessary for this purpose while fasting.

In both cretinism and myxedema massage will be helpful. Spinal stimulation is of great value as a means of invigorating the nervous system and arousing activity of the glands of the body as a whole. A hot spinal pack each morning, together with Special Manual Treatments Nos. 1 to 10 are suggested; or if the patient can be persuaded to take voluntary exercise of a more vigorous nature Special Manual Treatments Nos. 11 to 16, or Self-Applied Movements Nos. 1 to 6 may be recommended.

Sun-baths that gradually tan should be included in the treatment in all cases. Local applications of alternate hot and cold wet cloths may be valuable in stimulating the circulation through the thyroid region and perhaps arousing activity of the gland in question. Most important, however, are constitutional treatment and internal secretion treatment.

Tic

TIC.—A spasmodic twitching of the muscles, especially of the face. To a considerable extent it is habit. The same constitutional treatment as for neuritis will be suitable in some cases, while that given for neurasthenia will be best for others, especially those due largely to habit. (See also *Spasm.*)

Tic douloureux is an agonizingly painful neuralgia of the branches of the fifth cranial (trifacial) nerves. It sometimes resists all forms of treatment except pain-killing drugs. These or surgical removal of some branch or branches of the nerve may be necessary in extreme cases. (See *Neuralgia.*)

TINEA.—See *Ringworm.*

Tobacco
Heart

TOBACCO HEART.—Functional derangement of the heart due to nicotine poisoning from the habitual use of tobacco. Ordinary treatment for heart disease (which see) will not suffice, though perhaps will be necessary; the use of tobacco must also be discontinued. (See *Tobaccoism.*)

Tobaccoism

TOBACCOISM.—Chronic tobacco poisoning through the habitual use of the dried leaves of the plant tobacco (*Nicotiana tabacum*). The poison of tobacco is the alkaloid nicotine, an oil, which in its pure form is, next to prussic acid, the most rapidly fatal poison known. Tobacco is a powerful nerve depressant, nauseant and emetic. It also causes profuse perspiration. These qualities indi-

cate its poisonous character. It is used medically as a narcotic and sedative. In a sufficiently large dose it will cause death by paralyzing the respiratory centers. The severe and agonizing illness following the smoking of "the first cigar" is an experience only too common.

Treatment. (For treatment of acute tobacco poisoning see *Depressant Poisons* under *Poisoning*.) The general routine to be observed in *chronic tobacco* poisoning is practically identical with that for chronic alcoholism or other drug habits. (See *Alcoholism*, and *Drug Habits*.) Increased strength of body will bring with it the increased strength of mind necessary to fight the habit; but as the body becomes stronger and more normal the victim will feel a gradual reduction of the craving for the narcotic. The fasting routine suggested in the above references will be especially valuable and will enable the patient to readjust his organism to a sudden discontinuance of the habit, though often a fruit diet, such as Partial Fast No. 1, 2 or 3, will be as beneficial and at the same time easier for the patient. Special emphasis is to be placed upon the value of exercise and outdoor life, both in overcoming the habit and in eradicating all traces of the poison. The adoption of a plain diet and simple mode of life will help effect a cure. Sweating baths and sun-baths will be especially helpful in this condition.

Tobaccoism,
Treatment

TOE-NAILS, DISORDERS OF.—See *Nails, Diseases of*.

TONGUE, DISEASES OF.—Though in the majority of people never being the seat of serious trouble, the tongue may be affected with various disorders.

Tongue Dis-
eases

Glossitis (*Inflammation of the Tongue*) may be acute or chronic. An *acute* glossitis seldom occurs alone, but usually is a complication of an inflammation of mouth and throat, stomach or intestines. It may result from an infected wound produced by jagged teeth or otherwise. Suppuration and abscess may occur, especially if the patient is toxemic. The fundamental cause of the inflammation in all cases is a general toxemia.

Symptoms. The tongue becomes swollen, red, painful and tender. There often are increased salivation, bad odor to the breath and difficulty in swallowing and in speaking. The glands of the neck also may become swollen and tender. Sometimes the tongue will show furrows or cracks.

Treatment. Elimination should be the keynote of treatment. The patient will not feel like eating with his tongue painful and swollen. It may be difficult for him even to drink water. However, Complete Fast No. 3 should be used if at all possible. A full warm enema should be given daily. If there is high fever, as sometimes occurs, a cold wet-sheet pack may be given daily. This may be given in any case on the first day; or if the patient's reactive powers

Tongue, In-
flammation
of, Treat-
ment

are poor, a hot-blanket pack may be used instead. If facilities for such as this are not available, a hot foot-bath or any other method of producing free perspiration may be employed. If suppuration threatens, a mouth wash of equal parts of lemon juice and water, or a teaspoonful of salt in a glass of water, may be gargled every two hours during the day. If suppuration is marked or if an abscess forms, incision may be required in order to produce more rapid and free drainage.

After the acute symptoms have subsided the fast may be broken by taking orange juice for one day and six or eight full whole oranges for another day or two. Milk Diet No. 3 may then be adhered to until there has been full recuperation; or if this cannot be arranged for one of the Milk and Fruit Diets may be employed. Some form of sour milk may be used to advantage if the patient relishes it. A suitable vitality-building routine should be adopted and carefully followed.

If the inflammation of the tongue has occurred in conjunction with some other disease, whatever additional measures may be required for that abnormality should also be employed.

Tongue,
Chronic
Inflamma-
tion

Chronic Glossitis (superficial) may result from syphilis, excessive smoking, jagged teeth, and other forms of irritation. Usually removal of the irritation will permit the tongue to become restored comparatively to normal. If any specific treatment for an underlying cause is required, that also should be given. Mouth-washes may be used daily, using salt-water, dilute lemon juice, or boric acid solution. Though often perhaps not really necessary in detail in the chronic condition, the treatment given for acute glossitis would be beneficial, especially the fast and the milk diet, to improve the general condition and to give the tongue freedom from the irritation of mastication.

Tongue
Ulceration

Ulceration of the tongue may be of various kinds: *Simple ulceration* results from direct irritation, as from carious or jagged teeth and gastric disturbances. The ulceration is irregular in shape, its edges are abrupt and its base depressed, and the edges do not become everted or turned outward. Treatment must be directed toward the causes. *Tuberculous ulceration* is uncommon. It appears usually in young male adults who have other forms of the disease. The tip or near the tip of the tongue is affected, there being a round, oval or irregular painful ulcer with edges slightly elevated, inverted or undermined and with an uneven base covered with coarse pinkish-gray granulations. This often apparently is an incurable affection, though general treatment for tuberculosis, of course, should be given. *Syphilitic ulceration* has the same characteristics as elsewhere, so the same treatment is required as for syphilis manifesting otherwise.

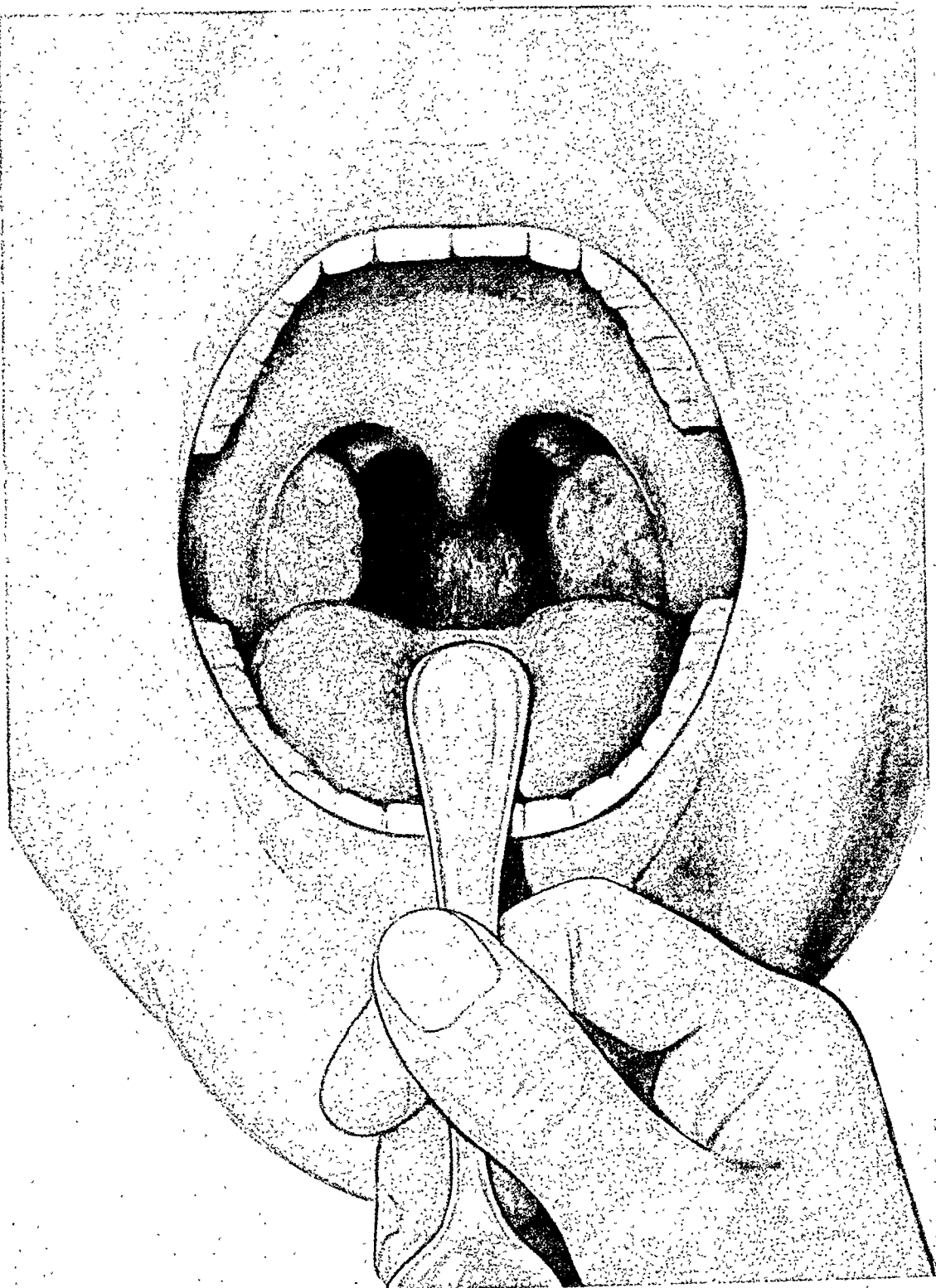


PLATE 108. The form of tonsillitis illustrated is called follicular because the exudate, which is yellowish-white in color, forms in the follicles or crypts of the tonsils.

Macroglossia is hypertrophy of the tongue. It may be congenital or acquired, but is rare. It seems to be more or less similar to elephantiasis. Surgical operation usually is required.

Tongue-tie is a condition in which the tongue is bound down to the floor of the mouth by a short frenulum (the thread beneath the tongue in its center), resulting in difficulty in feeding and, later, in speech. Some mothers imagine their babies are tongue-tied when there is nothing wrong. When the condition really exists a doctor or a surgeon will perform the simple operation of making a notch in the free border of the frenulum.

Cancer of the Tongue. This disease, like cancer of the lips, usually afflicts men who are confirmed smokers (particularly pipe smokers), especially if they are predisposed to the malady and have the necessary high degree of toxemia. The first signs of tongue cancer are hard, well-defined nodules usually upon the center or the anterior portion of the tongue, more rarely upon the sides and edges. At first these spots do not cause discomfort, but after a short time pain and ulceration set in. There is a discharge with an offensive odor. The ulcerations spread and involve the glandular and other structures in the vicinity. Henceforward the growth develops rapidly, so unless prompt measures be adopted the patient quickly reaches a condition beyond alleviation. (For treatment see *Cancer*.)

TONSILS, DISEASES OF.—*Chronic enlargement or hypertrophy* of the tonsils is common among sickly and poorly nourished children. The tonsils are swollen and there is more or less interference with breathing and swallowing, together with snoring, distressing dreams as the result of imperfect respiration, and in some cases disturbances of the ears or hearing. It often is associated with adenoids. (See *Nasal Defects and Diseases*.) This is sometimes called chronic tonsillitis. It may come about gradually as the result of inflammation and poor health, or follow repeated acute attacks of tonsillitis.

Tonsils
Diseases

Tonsillitis is an acute inflammation of the tonsils, there being three marked varieties.

Simple Tonsillitis is an acute catarrhal inflammatory process of the mucous membrane of the tonsil, characterized by swelling as the result of the congestion of the blood-vessels. There is a pain from the neck to the ear when the patient swallows, headache, stiffness of the neck and slight fever. Following a copious catarrhal discharge for a few days this form of tonsillitis generally disappears. When the mucous discharge is absent, however, the condition is much more serious. The temperature rises, the lymph glands under the chin and at the side of the neck swell, and there is inflammation of the middle-ear with much intense pain.

Tonsillitis,
Simple

Tonsillitis,
Follicular



To examine the tonsils and throat, a clean handkerchief, gauze or other cloth may be used to hold the tongue and draw it out to full length. Strong natural or artificial light is desirable.

Follicular Tonsillitis is a more severe inflammation of the tonsils, usually considered as an acute bacterial infection, characterized by the collection of whitish, cheesy masses upon the surface and in the crypts, these obstructing the secretions. The small, offensive, whitish patches are the result of necrosis or death of the epithelial cells. The throat is sore, swallowing is painful, the pain shooting to the ears, there is fever (103 degrees to 105 degrees), with rapid

pulse, pains in the back and limbs, coated tongue and heavy breath. This disease lasts about one week. It often follows cold or exposure.

Tonsillitis,
Ulcerative
(Quinsy)

Phlegmonous tonsillitis, Peritonsillar (Circumtonsillar) abscess, or Quinsy. This is a suppurative condition in the tissues around the tonsils, sometimes involving the structure of the tonsil. The symptoms are the same as tonsillitis except that they are all more severe and there is marked prostration. One or both tonsils may be affected. If both are affected at the same time the patient becomes ill, and as the swollen tonsils may meet in the center of the throat great difficulty may be experienced in breathing. There is no exudation on the tonsils, but the glands in the neck are swollen and tender and there is marked salivation. Muscular spasm prevents the mouth from being opened.

Tonsils, Dis-
eases of,
Treatment

Treatment. The treatment of the various forms of tonsillitis, which in reality are merely different degrees of the same condition, must be of a constitutional nature to purify the blood as quickly and as thoroughly as possible. An absolute fast is essential until all symptoms have disappeared. More rapidly to cleanse the

alimentary canal, daily enemas and the copious drinking of water are necessary. The later diet is to be simple combination of fruits and milk, perhaps with vegetables at one or two meals each day. Sugars are to be avoided and starches used only moderately. In the more severe forms, especially when there is high fever, cold wet-sheet packs should be given, though when the patient is weak a cold abdominal pack may be used instead. Pure outdoor air is highly important.



This illustrates the throat compress used in cases of tonsillitis, laryngitis, croup, and inflamed glands.

By way of local treatment, in the simpler forms, cold applications to the throat and jaw together with sucking of ice pellets will give relief and reduce the inflammation. In the more serious cases, however, or if the cold is uncomfortable, hot packs should be used instead, together with gargling of the throat and rinsing the mouth with hot salt water. If there is much tendency towards mouth breathing the nasal passages should be cleared, if necessary by spraying with salt water of a neutral temperature. Hydrogen peroxide, in moderate strength solution, may be used as a gargle or a spray in follicular tonsillitis. Direct ultra-violet irradiation through the mouth by means of a water-cooled mercury-arc sun lamp usually will reduce the swelling and inflammation in any tonsillitis within a comparatively short time.

In the case of *quinsy*, or phlegmonous tonsillitis, no attempt need be made to use local cold packs, but the hot salt-water gargle and hot packs to jaw and neck are indispensable. Even though the patient should have difficulty in swallowing, every effort should be

Tonsillitis,
Local Treatment

made to induce him to drink as freely as possible. In some cases of ulcerative tonsillitis lancing by a competent physician may be necessary. In practically all cases, however, the treatment suggested here will bring about beneficial results within a reasonable time.

Chronic swelling or enlargement of the tonsils may be reduced somewhat by constitutional measures for improving the general health. The removal of the tonsils is occasionally necessary. The adenoid growths sometimes present in connection with such enlargement of the tonsils should be removed (perhaps by finger surgery), but the tonsils themselves can often be brought back to a more normal condition by a general improvement in health.

Toothache

TOOTHACHE.—Pain in the teeth may be due to anything which irritates the nerves of the teeth, such as exposure through a cavity, or inflammation, or abscess of the tooth or of the gums or even of the sinuses. The causes often are not entirely local. The fundamental cause of toothache usually can be traced to wrong habits of living. The pain may be sharp, dull or throbbing, steady or paroxysmal, but in most cases is acute, so should demand immediate relief.

Toothache,
Treatment

Treatment. The immediate treatment of toothache due to a cavity is to plug the cavity with medicated absorbent cotton, using oil of cloves, creosote, chloroform or specially prepared "toothache drops." Toothache wax or some other special preparation also may be used to protect the nerve from the air. As soon as possible a dentist should be consulted to have the cavity filled, the tooth or gum otherwise treated or, if necessary, the tooth extracted. The diet should be corrected to include plenty of raw food and thorough mastication should be practiced so as to aid in preventing or delaying the formation of further cavities.

When the toothache is due to abscess at the root, removal will be required if the tooth has been excessively filled or the nerve has been killed; otherwise the tooth usually can be saved by appropriate constitutional treatment and local dental work or the local application of hot compresses and antiseptics, such as lemon juice. Local ultra-violet irradiations also are valuable.

For toothache due to inflammation of the gums, pyorrhea, sinusitis or neuralgia, apply hot compresses or a hot-water bottle for immediate relief of the pain, then institute the proper constitutional treatment as advised under the special headings mentioned.

Proper hygiene of the mouth is always important. Raw foods and thorough mastication are the two chief items. These measures not only supply the teeth with the necessary building elements and exercise, but help to keep them clean. If the other habits of living are right there should be less necessity for depending on tooth-

brushes or toothpaste, tooth powder, etc., though moderate use of these usually is advisable.

Usually in a toothache of inflammatory origin the continued application of cold will be of great value. This may be applied directly back of the neck, to the upper spine and on the side upon which the toothache is located. These spinal applications will help control the inflammation by reflex influence. In all cases where toothache is of a nervous origin heat should be used instead, using hot-water bottles or fomentations. Sometimes cold followed by heat will be more effective, so this method should be followed whenever there is doubt as to the origin of the toothache or whenever cold gives greater relief. In some cases alternate cold and hot applications will be effective.

Toothache,
Inflamma-
tory, Treat-
ment

In addition to these local measures constitutional treatment will be of value in easing toothache of an inflammatory character. The drinking of large quantities of hot water, together with a hot enema, is recommended. Drinking hot water will flush the tissues, as it were, and greatly accelerate the circulation, bringing a great relief in some instances. Holding hot water in the mouth often is efficient. In connection with these measures a short fast of one or two days, or until the toothache has subsided, may be recommended.

TORTICOLLIS.—See *Wryneck*, and *Spasm*.

TOXEMIA.—An accumulation of systemic poisons too large for the body's ability to eliminate in the ordinary way. The toxins may develop within the body or be introduced from without. In *acute* cases they are much more often introduced from without, as, for instance, in vaccination and inoculations of all kinds, through infection of wounds, the accidental taking of poisons, poisonous bites and stings, etc. Occasionally the toxins form within the body, as in the case of acute indigestion and ptomaine poisoning, though even here the material from which the toxins are produced was introduced from the outside. Toxemia may be chronic as well as acute.

Toxemia

The *chronic* form is most often a result of wrong habits of living. These interfere with metabolism so that more poisons are produced than would normally be the case and at the same time lower the rate of elimination so these poisons are not thrown off as they should be. Thus there is a gradual accumulation which sooner or later reaches the point where it can no longer be tolerated without distress in or disordered function of some organ or system of organs. An acute reaction may then be produced; but this is not necessarily a sign of an acute toxemia.

Toxemia,
Chronic

Chronic toxemias and the enervation or reduced nerve-force they cause are responsible for more acute and chronic diseases than all other causes combined. In fact, together they constitute the

one cause, except in those cases resulting from injury or direct poisoning from the outside, such as lead- and silver-poisoning, etc. An acute toxemia always produces an eliminative crisis; a chronic toxemia may produce either an acute or a chronic reaction or a chronic reaction with acute crises.

Toxemia may be general or specific. A general toxemia is the result of wrong habits of living. A specific toxemia is a result of particular poisons or foreign agents, including many serums, metallic and vegetable poisons, worms and other forms of parasites, bacteria and their toxins, the use of alcohol, tobacco, tea, coffee, etc. General toxemia is practically always the fundamental cause of all diseases, the specific toxemia being the exciting agent or, figuratively speaking, the straw which breaks the camel's back.

Symptoms. (See *Autointoxication, Blood-Poisoning, Fevers, Poisons, Uremia*, etc.) The symptoms of toxemia include all symptoms known, for nearly always some form of toxemia is present or there would be no reason for symptoms. Symptoms are practically always either a manifestation of some unusual eliminative effort on the part of the body, or warning signs, as in the case of pain. The symptoms of an acute toxemia come on suddenly and are quite violent, while those of a chronic toxemia come on gradually; but while they are not so distressing, they last longer and are more difficult to overcome. Some of the most common symptoms of an acute toxemia are nausea, vomiting, diarrhea, skin eruption and fever.

Treatment. An acute toxemia requires vigorous treatment; that is, every effort should be made to assist the body to cleanse itself as quickly as possible. To this end, nothing should be taken into the body except air and water, which assist in the cleansing process. Food, drugs, vaccines and serums are especially to be avoided, as they only further poison the body. *Even good food* poisons at such a time, because the body is not in a condition properly to digest, assimilate and eliminate it. If there is food in the stomach when the symptoms first appear, drink as much water as the stomach will hold, then insert the finger down the throat several times until the stomach is thoroughly cleaned. Repeat the same procedure if necessary. The free drinking of water and the daily use of enemas, along with a fast, will cleanse the alimentary tract. The use of the water will also increase elimination of cell- and tissue-wastes through kidneys and skin.

Skin elimination should be further increased by means of eliminative baths or packs. These may be hot or cold, depending on whether or not there is much fever; but both are designed to produce extra perspiration. Deep breathing of fresh air is excellent for cleansing the blood stream. These measures, together with clean-

Toxemia,
Symptoms

Toxemia,
Treatment

liness, rest and mental peace, will so assist the body in its eliminative efforts that the offending toxins will be cast out and the eliminative crisis will subside. Only in case of the accidental taking of poisons will anything further be required. Then, an antidote should be administered in addition to the general treatment. (See *Poisons*; also *First Aid in Accidents and Disease*, Vol. VII, Sec. 5.)

The specific application of these methods of treatment are covered in detail under the various headings mentioned under *Symptoms*.

TRACHOMA (*Granular Lids*).—See *Eye, Diseases of*.

TRANCE.—A condition presenting the appearance of apparently deep sleep. Although voluntary motion is absent, sensibility to various mental or physical sensations, or even consciousness, or in some cases both sensibility and consciousness, may be present. Hypnotic trance and some other forms of trance do not necessarily involve disease conditions. Hysteria is an example of a disease that may be attended by the appearance of trance. The cause in such instances may be ascribed to a lack of resistance of the nervous system to an exciting or predisposing cause. Trance in many respects shares the symptoms exhibited in catalepsy, and causes that may bring about these similar subnormal conditions are listed in Volume VII, under *Catalepsy*.

Trance

Symptoms. The principal symptom of trance is a state of suspended animation in which there is seeming cessation of all mental and physical functions.

Treatment. See *Catalepsy*, pages 3217–3218 Volume VII, for treatment for acute seizures, as well as persistent trance-conditions.

TREMOR.—Involuntary agitation or trembling of one or various members of the body, or in some cases of the entire body, is the symptom of this complaint. Tremor is most commonly seen in the hands, arms, tongue, facial muscles and head generally. It is a common phenomenon in cases of alcoholism, delirium tremens and paralysis agitans, is sometimes seen in cases of occupational neurosis and is observed in some cases of poisoning. It is a characteristic of hysteria in a simple form, as associated with neurasthenia, and in some cases indicates a more vital depletion, having its cause in some disorder of the nervous system. One should adopt treatment for vital depletion or neurasthenia. In short, general constitutional measures are required to purify the blood stream, improve the circulation and build up the vitality and the nervous system generally.

Tremor

TRICHIASIS.—An abnormal growth in such a direction that the eyelashes produce friction to and irritation of the globe of the eye. The common cause is granular lids (trachoma) which should be remedied. (See *Eye, Diseases of*.)

Trichiasis

Trichinosis

TRICHINOSIS.—An infectious disease due to the entrance, first into the intestine and then into the tissues, of a worm-like parasite which ultimately attains the length of a quarter of an inch. These parasites are found within the flesh of swine. On the ingestion of infected pork the larvæ of this parasite pass into the stomach and the intestine. In about three days the worm is fully mature. The female worm penetrates the intestinal wall and discharges hundreds of embryos into the lymphatic system, from which they enter the veins and are ultimately carried to the muscular structures of the body.

The first *symptoms* which arise after the contaminated pork has been eaten are intestinal disturbances—itching, nausea, vomiting, diarrhea and colicky pain. When these signs are neglected and the parasites penetrate the intestinal walls, skin eruptions, irritation, boils and profuse perspiration indicate the muscular portions of the body where the worms lodge. High fever, stiffness and extreme pain similar to severe rheumatic pain are further signs of their presence.

Trichinosis,
Treatment

Treatment. In practically all cases the patient instinctively will desire to fast, for he will have no appetite while suffering acute pains associated with the activity of the worms. Complete Fast No. 2 is advised, to be continued for four or five days to ten days, followed by an exclusive milk diet. Milk Diet No. 1 is especially recommended.

Immediately upon discovering the nature of the disease through the first symptoms mentioned, energetic measures should be made to cleanse the alimentary canal as quickly and as thoroughly as possible. Repeated enemas should be given, preferably hot, though not so close together that they will weaken or overtax the recuperative power of the patient. Emetics should be given at the same time to empty the stomach, using lukewarm water for this purpose. This is especially important if there is vomiting, but it will be well to empty the stomach even if there is no tendency to vomit; nausea itself and colicky pains should be sufficient indication. After the stomach has been emptied, the patient should drink water in great quantity for two or three days and after that continue to drink water freely.

Activity of the bowels is essential. For this purpose is suggested the high colonic flushing, with the colon tube inserted twelve to eighteen inches. The water may be barely warm or quite warm and should contain a level tablespoonful of salt to each quart, or a liberal quantity of soapsuds. Two or three quarts should be used. In short, the aim should be to clear the intestines of all the parasites which have not yet worked their way through the walls of the intestines. As a means of destroying any which may be re-

Trichinosis,
Colonic
Irrigations in

tained in the alimentary canal after three or four days of this treatment, most authorities highly recommend a remedy consisting of one part glycerin and two parts water, to be injected into the rectum.

For those parasites which have already infected the muscular tissues, it is necessary to depend upon constitutional treatment for increased vital resistance. In most instances a routine including a short fast followed by a milk diet will be sufficient and the victim should continue thereafter to follow a limited diet for an extended time. Any of the limited diets from 1 to 8 may be suggested. If the disease persists, then such radical measures as Fasting Routine No. 2 or 3 may be advised; in other words, adopting a fast which will be carried to a finish. Caution must be given, however, not to carry this fast beyond the point of ordinary weakness. Before the patient reaches the point at which he is no longer able to be up and about the fast should be broken and a milk diet should follow. Massage and hot full baths are of benefit.

TROPICAL DISEASES.—Though the majority of the diseases of the temperate zone are found within tropical regions also, many ills of the torrid zone rarely or never develop in cooler latitudes, though their after-effects may be experienced after the patient leaves the clime in which they originate.

Tropical
Diseases

The most common of all tropical diseases are yellow fever, malaria, plague, cholera, sleeping sickness (see below), and dysentery. Such ailments in a less acute form often are noted in more northern climes; or at times, such infectious diseases as plague and cholera, endemic in the South, may become epidemic in the North. But with increasing knowledge of the laws of health and hygiene their devastating effect is being proportionately brought under control.

Tropical diseases of various kinds, in nearly every instance, are due to the abnormal diet followed by the inhabitants, together with general unsanitary conditions. Infected water and certain climatic conditions also are influences. Travelers coming from other countries often suffer from these various diseases, because they insist on taking their unnatural diet into these hot climates. However, the diseases can be treated successfully by ordinary natural methods.

Raw or properly cooked fruits and vegetables, and nuts, should form the bulk of the diet of those who live in tropical climates, though those fruits that have a natural protective covering, such as the banana, may and should be used without cooking. Although overeating is an evil at any time, it seems to be highly destructive in torrid regions. It always is advisable, when the temperature is high, to eat sparingly, so the fasting habit is one well worth culti-

Tropical
Disease,
Prevention

vating. When the appetite fails, if one would fast a day or two he would consequently, in many instances, avoid or modify a serious disease.

Malaria or *Tropical Ague* is by far the most general of all these ailments. It is known by many different names, such as jungle fever, coast fever, mountain fever, hill fever, or by the name of the district in which the disease may be prevalent. Recurring attacks of this fever often are experienced by sufferers when a return is made to the temperate zone. The symptoms are identical. (See *Malaria*.)

Sleeping
Sickness

Sleeping Sickness (*African Lethargy; Encephalitis lethargica*). This peculiar and very fatal disease of the western coast of Africa occasionally appears in temperate climates. It is said to be a form of filariasis, a disease due to the presence of a germ or parasite known as filaria in the blood stream. In any case, however, the progress of the disease depends upon the vitality and resistance of the patient. It is characterized by drowsiness and slumber, which increases until the patient becomes extremely emaciated and finally dies. In addition to these symptoms there are headache, dizziness, shivering, vomiting, pains in the muscles, fever, nervous symptoms, restlessness, sometimes delirium or mania.

Sleeping
Sickness,
Treatment

Treatment. In case prophylactic measures cannot be followed sufficiently to enable one to avoid the diseases common to tropical climates and one suffers an attack of any one of these various forms of disease, treatment may be adopted along the line described elsewhere in the discussion of fever, malaria, cholera, etc. (which see). In the tropical zone it sometimes is difficult to get satisfactory drinking water. Inasmuch as water sometimes is the most important feature in the treatment of such diseases, the water available should be thoroughly boiled before use. If distilled water can be secured so much the better.

Where there are symptoms of dysentery enemas should be used to assist in the natural effort of the organism to rid itself of the toxic matter. Indeed, in all cases every effort should be made to cleanse the alimentary canal by means of enemas, the copious drinking of water and fasting. Cold abdominal and hot spinal packs will be of great advantage. In some cases when there is high fever cold wet-sheet packs and cold enemas will also be beneficial. In short, the treatment of these various maladies in tropical latitudes should follow closely the methods adopted in any other climate for the treatment of the same or similar complaints.

The treatment of African lethargy or the *sleeping sickness* requires special stimulation of the nervous system. Wherever possible the patient should be induced to drink freely of hot water, previously boiled. It is understood that he must fast entirely for a few

days in the beginning of his illness; after this, however, every effort should be made to induce him to follow the exclusive milk diet or a milk and fruit diet in order to build up nervous energy and vitality. Special care should be used to keep the bowels active by means of enemas. Hot enemas will prove stimulating.

Hydrotherapeutic treatment will be of special value, both as a means of eliminating the toxins of the disease and of arousing the nervous energy of the body. A cold douche to the entire body is recommended if the patient is vigorous enough to react from it, otherwise a dripping sheet or evaporating sheet may be used. If this seems too vigorous a wet-sheet pack may be substituted, or a prolonged warm shower bath, one or two hours, repeated daily. As an alternative treatment a hot spinal pack may be recommended, combined with Special Manual Treatments Nos. 11 to 16, if the patient is strong enough, otherwise a choice of Special Manual Treatments Nos. 1 to 10. Do not use more than one hydriatric treatment daily. Massage and passive movements, friction baths and air-baths will be of great value. The patient should be kept in the open air at all times. Sun-baths are helpful in chronic cases.

Beyond these suggestions, the treatment for various tropical ailments depends upon general constitutional measures. (See also *Beriberi*; *Black-Water Fever*; *Cholera*; *Dysentery*; *Plague*, *Bubonic*; and *Yellow Fever*.)

TUBERCULOSIS OF BONE.—See *Bone, Diseases of*.

TUBERCULOSIS OF LUNGS (*Consumption*, *Phthisis*, *Pulmonary Tuberculosis*).—A degenerative condition of the lungs due to changes in the lung tissues produced by the accumulation in the part affected of morbid and waste material circulating within the blood stream. It is believed by many that the presence of the tubercle bacillus alone is the cause of the tissue change and wastage. But only when the soil is first prepared upon which this bacillus can thrive will its depredations become noticeable. The bacilli are but a secondary factor at any time, being merely accompaniments of the tissue degeneration caused by defective blood and defective blood supply. This is proved by the fact that autopsies show that at least 90 per cent. of all persons have had some degree of tuberculosis in their youth, but that the disease in a large percentage of these did not progress or produce any symptoms, due to the fact that the subject's good general condition prevented the progress of the disease.

Certain predisposing causes, however, it may be well to mention. *Heredity* is one. There sometimes is inheritance of certain constitutional defects which increase the susceptibility of the body or the lungs (or certain other tissues) to this type of degeneration. *Age* is another. Tuberculosis may occur at any age, but pul-

Tuberculosis
of Lungs

Tubercu-
losis, Pre-
disposing
Causes

monary tuberculosis develops most frequently between the ages of fifteen to twenty-five. Under five, tuberculosis is more likely to attack the bones, joints and glands than the lungs. *Race:* The negro race seems to be particularly susceptible. In a way, this may be due to living conditions, overcrowding, change of residence from hot to colder climates, etc. Still, there does seem to be a somewhat greater susceptibility aside from these causes. The Hebrew race shows a low mortality from tuberculosis, because of a natural immunity.

Bad environment, of course, is a predisposing cause. Badly ventilated sleeping and living rooms, poor food, overcrowding, scarcity of sunlight, lack of exercise and many other unhygienic conditions which tend to undermine the vitality and weaken the general health all have their influence upon the development of this disease. Certain occupations also may be called predisposing, especially those in which gases or vapors or finely powdered materials, dust, etc., are constantly inhaled. Tuberculosis may occur in any climate, but it is rarer in high and dry localities than in low and moist ones.

Tubercu-
losis and
Marriage

The subject of the marrying of a person with tuberculosis is a highly important one. A good rule to follow is that no person who has had symptoms of active tuberculosis should marry 'until at least two years have passed since the manifestations of any such active symptoms or physical signs. A woman with tuberculosis in the active stage cannot bear children without danger to herself. Such a woman may go safely through one, or possibly two, pregnancies; but the third is likely to prove serious.

There are two principal varieties of consumption or tuberculosis of the lungs. The first and most common is chronic, or lingering consumption; the second and rarer, is termed "galloping" or "quick" consumption.

In contradistinction from these two forms of pulmonary tuberculosis, acute general tuberculosis does not attack the lungs alone, but the entire organism, bringing down its victim suddenly and producing a condition similar in many respects to blood-poisoning. The course of this disease is even more rapid than that of galloping consumption, the patient usually dying within two to six weeks. (See *Tuberculosis, Acute Miliary* below.)

Tubercu-
losis,
Symptoms

Symptoms. The most common form of pulmonary tuberculosis is of a *chronic* nature. It often begins by the patient suffering from catarrh, either of the throat, the bronchi or the stomach. In the lung it usually appears first in the upper lobe from one to two inches below the apex and extends downward from that point. Cough and expectoration appear. The sufferer is much "run down." Maintenance of weight is difficult and anemia and gradual ema-

ciation are invariable accompaniments. These are symptoms which many consider to be of a more or less harmless nature; but they could not be present were the simplest of hygienic laws practiced and applied. Frequently, however, there may be no appreciable symptoms until the disease has made considerable advancement in its course.

With the development of the disease expectoration and cough increase and a pain appears in the chest between the shoulder blades or on either side. At the onset expectoration may be absent; but as the disease develops the cough becomes troublesome, especially during the night and early in the morning. At first, mucus only is expectorated; but with an involvement of a larger area of tissue, pus and elastic fibers appear in the mucus. Gradually the white mucus becomes greenish-yellow and this sometimes is streaked with blood. In further advanced cases where cavities are present in the lungs the sputum is composed of solid airless masses which sink in water.

Breathing is only slightly impaired during the early states. But as the disease advances respiration becomes increasingly difficult. While the sufferer remains quiescent, taking little if any exercise, the power of inhalation may be, apparently, nearly normal; but the slightest exertion at once reveals the lung impairment.

Subsequently to a rise in temperature and the appearance of chills, night sweats begin. With a gradual increase in temperature, especially during the afternoon, more copious expectoration and occasionally hemorrhage from the lungs, the patient's condition becomes more and more hopeless until, when the victim becomes almost a skeleton, the end arrives after protracted suffering varying in length from one to several years.

Tuberculosis, Night Sweats

Tuberculosis of the lungs is a wasting disease in the true sense of this word. But the loss of body weight which marks the various stages of the development of the disease should not be regarded as due entirely to forces at work within the victim, bent on destruction; rather should it be ascribed to its proper cause—a clogged and overburdened organism which vainly endeavors to liberate itself from its morbid accumulations.

“*Galloping*” or “*Quick*” Consumption is exceedingly rapid in its course. It often follows some other acute affection of the lungs, such as lobar pneumonia. In fact, acute or galloping consumption often gives the same general symptoms and physical signs as pneumonia; but not until the time for the pneumonic crisis should arrive but does not do we begin to suspect tuberculosis with its continuation of fever (which becomes irregular), rapid heart-action and persistent consolidation of the lungs.

Tuberculosis, “Galloping” or Quick

**Tubercu-
losis, Quick,
Symptoms**

Symptoms. The symptoms are as follows: After a few days of discomfort a severe chill is followed by a high fever. Pain appears in the chest and a cough develops, at first infrequent and dry, but rapidly becoming worse, accompanied by a white and frothy expectoration.

In a month or more, as the disease progresses, this becomes yellow and thick and at times may be blood streaked. In many cases the voice is hoarse; in others it is almost totally lost. The rapidity with which flesh and strength are lost is extremely remarkable. Breathing becomes short and difficult and this difficulty is experienced even while the sufferer is at rest. The pulse becomes rapid and feeble.

The bowels are constipated but often change to debilitating diarrhea. Exhaustive night sweats soon appear. The fever has a tendency to increase late in the day. On the prominent point of each cheek a hectic flush appears.

In later stages of the disease hemorrhage from the lungs may appear and after a violent paroxysm of coughing a mouthful of frothy blood may be expectorated. Unless drastic constitutional measures are adopted at a comparatively early stage there is little hope of relief from this affliction and the patient may die within a few months or even less time.

**Tubercu-
losis of
Lungs,
Treatment**

Treatment. Authorities finally have agreed that the outdoor treatment is the only reliable one for the "Great White Plague." The same treatment can be given one who is suffering merely from weak lungs and is desirous of strengthening these important organs. Impure, confined air interferes with the functional processes of the lungs. In such air the carbonic acid gas is not properly replaced by oxygen, the great life-giver, which cannot be breathed in proper quantities.

The first thing for one to do to strengthen weak lungs and to try to recover from tuberculosis, is to live outdoors. Whenever possible (see below) there must be a daily sun-bath. No matter how healthy one may be, overheated, confined air is injurious at all times and under all circumstances; but it is an actual poison to anyone suffering from this disease. Naturally, where one possesses a large amount of vitality there may be no immediate signs of the evil effects of this sort of coddling.

In cultivating the habit of living out of doors, one may find it difficult at first to maintain warmth. One will not be benefited when seriously suffering from cold. The body should be kept warm and comfortable; but this does not mean that one should indulge in the coddling habit.

One should slowly but surely inure the body to what might ordinarily be termed exposure. Don't wear any more clothing than

necessary to maintain bodily warmth. Remember that the amount of clothes usually considered necessary to maintain warmth is largely a matter of habit. In other words, one can gradually lessen the amount of clothing he is wearing and in nearly all cases the body will slowly but surely adapt itself to the change; that is, the blood will supply the increased warmth necessary for comfort.

Tubercu-
losis, Cloth-
ing in

The principal feature of this strength-building process, however, is the breathing of pure outdoor air. If one can sleep outdoors at night and maintain a satisfactory degree of warmth, so much the better. One can adopt various methods to enable him to maintain a comfortable temperature. For instance, if he finds it difficult to keep the body warm while sleeping outdoors he can place a hot-water bottle at his feet. If his circulation does not maintain a comfortable degree of bodily warmth even under these circumstances, he can place hot-water bottles at the hips also.

Too much bed covering often will defeat its real object, because of its excessive weight. As a rule, one double blanket and a comfortable are sufficient to maintain bodily warmth in ordinary weather, though in extremely cold weather two comfortables might be used. Where the circulation at the extremities is poor an extra covering may be thrown over the feet.

For those so placed that they cannot live outdoors, various suggestions undoubtedly will be of great value. Information upon the relation of sanitation and hygiene to health is given with methods of ventilation in Vol. I, Sec. 6. By any of these methods one can secure almost as much oxygen as if he were outdoors. Almost is used advisedly, however, for indoor sleeping, no matter how many windows are open, is not the same as sleeping out of doors. There is a decided difference in the effects of sleeping in a room, even when it is properly ventilated, from the effects of outdoor sleeping. One sleeping outdoors nearly always awakes at daylight and is thoroughly awake in a moment. As a rule he feels rested, not sleepy and tired. This is not usual when sleeping indoors.

Tubercu-
losis, Fresh
Air in

At least the head should be kept outdoors. To accomplish this object almost any small bed can be used. The head of the bed should be placed outside an open window about a foot and a half beyond the window sill. After retiring, the window may be partially closed. This, of course, permits the sleeper to be practically out of doors so far as breathing is concerned. An awning or a large umbrella may be used for privacy if one lives in a thickly settled community.

Various contrivances enable one to secure a full supply of pure outdoor air without lowering the temperature of the bedroom to any great extent. A contrivance of this kind is valuable also

Tubercu-
losis, Win-
dow Tents in

in case of rain or snow. These tent-like or awning-like arrangements (so called window tents) are simple and easily adjusted. In fact, any means that one can adopt which will freely supply outdoor air for breathing purposes will be useful. One should never rebreathe air which has once passed through the lungs. Every breath of air should be richly laden with oxygen.

Do not make the mistake of placing the patient in a tightly closed tent, with the idea that this will give him the advantage of the outdoor treatment. Tent life is not necessarily outdoor life. The canvas of the tent is almost as impervious to the air as the ordinary walls of a building. If the patient is being treated in a tent it is just as important to have large openings in the tent wall as to have the windows open in an ordinary room. Sleeping upon the roof in a suitable tent often is possible and gives good results. In inclement weather the patient can retire to the interior of the house, sleeping upon the roof at all other times.

One is not likely to secure too much oxygen at any time. When suffering from a disease of this character the more oxygen he can secure, the better.

After being assured of a plentiful supply of fresh air, the next important step is the correct dietetic routine. If one is desirous of making rapid progress a diet including animal food must be adhered to. Experience shows that a patient on a non-animal diet must be watched carefully for signs of possible untoward results; yet meat certainly is not necessary. It is doubtful if it can have any beneficial effect that cannot be even more pronounced by other foods, though when a meatless diet is used a plentiful supply of buttermilk flavored with a few drops of lemon juice may be used at meals and between meals when desired.

Unquestionably the best diet in acute tuberculosis is fresh cows' milk. The milk, however, must be of good quality, and it must conform to the requirements clearly outlined in the discussion of the exclusive milk diet (Volume VII, Sec. 6). This diet should be preceded by a short fast, even if for only one day.

Tubercu-
losis, Treat-
ment of
Chronic

In the treatment of *chronic* tuberculosis, the fast usually can be continued a little longer than in the acute form of this disease, or quick consumption. As a rule, however, it is not advisable to fast for more than three or four days in the treatment of any tuberculous ailments. In some cases it is claimed that cures have been made by longer fasting; but in many instances it seems to be dangerous, because much loss of weight should be avoided in this disease. Therefore, fasting should be continued only a sufficient length of time thoroughly to cleanse the alimentary canal. So far as possible any wasting of the tissues should be avoided.

The following general routine for treating chronic tuberculosis

of the lungs is suggested: Complete Fast No. 2, for two to four days, followed immediately with Milk Diet No. 2, though as a change from this to Milk and Fruit Diet No. 3 should be followed for a day occasionally. If the latter should be especially appetizing it might be continued in preference to Milk Diet No. 2, though if sumik is craved between meals some may be taken between breakfast and luncheon, between luncheon and dinner, and on retiring at night. Where convenient Milk Diet No. 5 would be better than Milk and Fruit Diet No. 3.

Tubercu-
losis, Diet in

A neutral bath 98 degrees to 100 degrees F. for one hour should be taken just before retiring at night in all cases when on an exclusive milk diet. As a caution, mention is made that neutral baths for a longer time are not to be recommended to tuberculous patients.

As a general thing the regular exclusive milk diet offers the most satisfactory routine. If one is so hampered by his occupation that he cannot follow this, then Milk Diet No. 11 may be used, though in treating this condition one should devote his time and energy to getting well.

Milk Diet No. 2, however, or sometimes No. 1, will bring quicker and more effective results than the others in the treatment of this disease, provided it agrees with the patient. If the milk produces diarrhea, and this seems to be aggravated as the quantity is increased and continued for three to seven days, it sometimes indicates that the diet may not be satisfactory, though this is rare when neutral baths are used as suggested. Where there is fever the quantity of milk is to be limited to about three quarts daily, using acid fruit as desired. More milk can be taken after the fever is gone. A day or two on oranges alone as often as the weight will permit will be of further advantage in eliminating fever. (See *Fasting Routine No. 6*, Vol. VII, Sec. 6.)

In case the milk diet does not agree sumik, buttermilk, acidophilus milk, or some other form of sour milk may agree perfectly. If lemon juice is taken with the sweet milk diet there usually will be little trouble on the diet. Some of the Combination Milk Diets or Milk and Fruit Diets may be selected if the straight milk or sour milk cannot be taken. The next choice of a diet would be one of uncooked foods, such as advised for gaining weight, in Volume VII (Sec. 6) though buttermilk flavored with lemon juice may be added to this.

A diet of milk and eggs has been found of great value and in a few cases fruit has been added to this diet with benefit. Milk and eggs exclusively are inclined to induce biliousness in many people. The addition of the acid fruits daily and of a few drops of dilute hydrochloric acid (normally secreted in the human

Tubercu-
losis, Eggs in
Diet in

stomach) has proved of great value to the tuberculosis sufferer. Apples, oranges, pears, peaches and especially lemons and grapefruit, are inclined to alleviate symptoms and to assist digestion.

Eggs may be combined with milk, although these two foods are frequently best used separately. Sometimes eggs are made more appetizing by the addition of fruit juices. A good way to make a palatable eggnogg is to stir the milk and the yolk of the egg together, then, having previously added a little strained honey and vanilla, beat the white to froth and stir it in. Egg yolks usually are better than whole eggs with milk and egg yolks also combine well with fruit juices.

Often the dilute hydrochloric acid is merely added to the milk; but this form of active treatment is a blood chemical one and the right doctor is needed. Grape juice or apple juice will be satisfactory for this purpose also added to an eggnogg. The eggs may be broken into the fruit juices and stirred well with an egg-beater, or agitated thoroughly in an ordinary lemonade shaker. Many people like to add sugar to this combination, but this often is a bad plan, as it is inclined to sicken one of the combination and often makes it difficult to make this food a regular article of diet. Furthermore, sugar is one of the chief foods the victim of tuberculosis should avoid. Raisins, whole or ground up, added to an egg drink are wholesome and usually palatable. But this mixture requires mastication—though it is better that all eggnogs be taken slowly and well mixed with the saliva. Perhaps the best combination of all is egg yolk added to any one or two of the citrous fruit juices when taking even fair quantities of milk. Egg whites are unnecessary.

Tubercu-
losis, Ex-
ercise in

The daily vitality-building routine to be followed in detail in this case will naturally depend largely upon the strength of the patient. Mild exercise will be of value in all cases, except when there is fever; though when the exercise is continued for too long a period, or is so violent as possibly to irritate the inflamed lung tissues, it cannot be recommended. In some cases too much exercise will cause hemorrhage. As a rule, however, a distinct feeling of pain or discomfort will be associated with any exercise too severe for the strength of the patient.

Moderate walking is especially valuable in the treatment of this disease; but various exercises that bring into active use the muscles surrounding the chest are also of value. The strengthening of these muscles seems to add materially to the vigor of the functional organism. Physical culture is radically opposed to the do-nothing theory in the treatment of this disease, though when following the milk diet any exercise used should be taken in the morning before beginning to drink the milk.

The value of breathing exercises when taken in the open air can hardly be too strongly emphasized, though always they must be without pain. Many physicians are inclined to question the value of such exercises, as they maintain that the inflamed tissue of the lungs is irritated by breathing exercises and they fear danger of hemorrhage in case of violent breathing. Naturally, breathing exercises should not be strenuous in this disease; but they are helpful in moderation, when no discomfort is noted. When the disease is at its beginning, exercises for expanding the lungs can be taken with decided benefit.

If there is a distinct feeling of discomfort or actual pain in taking these exercises, then the lungs should be expanded only to an extent that is possible without pain. As a rule, if these exercises are continued with moderation day after day the painful symptoms will slowly but surely disappear. Pain is a definite warning to stop. It should not be ignored.

In the treatment of tuberculosis it is exceedingly desirable that the activity of the skin be greatly accelerated. For this purpose a daily dry friction bath is especially advised. After the fever has been gone a few weeks it might be a good plan to select some exercises, adapted to the strength of the patient, such as simple calisthenics for the abdomen and the back, take them in a reclining posture and to repeat them upon arising, following with the dry friction bath.

Tubercu-
losis, Skin
Activity in

If the milk diet is used, remember that the neutral bath should be taken daily before going to bed.

If not on a milk diet the chest pack, allowed to remain all night, would be advantageous, especially when there is unpleasant inflammation or excessive coughing at night. The use of water flavored with lemon juice or with honey (or both) would be a valuable means of alleviating the dry hacking cough so common in this disease. Be careful, however, not to take too much honey if on the milk diet, as this might cause some degree of indigestion. Only a small amount is necessary for flavoring.

A vital and highly important factor in the progress of a consumptive patient is strict sexual continence. Many consumptives seem to be unusually abnormal in this respect, and without doubt, in great numbers of cases, the disease is aggravated by excesses and abuses of the procreative function. In fact, many cases doubtless originate in sexual excesses, for there is a close association between the vital functioning throughout the body and the sexual organs. Furthermore, the loss of seminal fluid and the greater loss of nervous energy directly lead to such a condition of the lungs and the body in general as to pave the way for the development of tuberculosis.

Tubercu-
losis, Sexual
Life in

Male sexual indulgence when the female is passive, takes no part in it, and does not reach the crisis, is especially weakening. For a man to continue such unwholesome and debilitating indulgence, when struggling with this dreaded disease, is nothing short of madness. It must inevitably bring on a condition of such extreme vital exhaustion that no form of treatment can avail to stay the ravages of the malady; the tide of battle turns against the sufferer and his life pays the penalty. The consumptive should sleep alone, out of doors and should banish from his mind all thought of sex. Masturbation, in either sex, is even more detrimental than normal sexual intercourse.

Hemorrhage from the lungs in the course of this disease is often not as serious in its immediate danger to life as is popularly supposed. It indicates the serious condition of the patient, however, and should be a warning to follow treatment closely thereafter. If there is much loss of blood it is weakening. The patient should fast absolutely for one or two days thereafter. Absolute rest in bed is imperative. Please emphasize this REST. Cold compresses, frequently renewed, should be applied to the chest as the patient lies on his back, the head of the bed slightly raised. Ice-bags may be used over the chest for a short time, with two or three thicknesses of wet towel underneath, in a severe case of hemorrhage. Or small pellets of ice may be swallowed.

In the later stages of the disease, some care must be exercised in placing a patient suddenly upon the milk diet, for in the delicate condition of the lungs at that time the increased blood pressure due to the large consumption of milk may make hemorrhage a source of danger. Not more than two to four egg yolks and not more than five quarts of milk a day should be used. As a rule, the straight milk diet is better than milk and whole eggs, as this latter diet contains an excess of protein and fat. However, the milk diet offers the greatest hope in this condition, so one should not hesitate to adopt it through any fear of hemorrhages. These may be avoided with due care, as suggested.

In *acute* or *galloping consumption*, the following treatment should be prescribed: Where there is fever, rest is imperative until the temperature is normal. Then a little walking may be attempted and gradually increased. Milk Diet No. 2 is the preferred diet. A cold chest pack should be given sometime during each morning and should remain until dry, or for at least an hour, preferably longer. If the patient is inclined to be chilly, with extremities cold, this pack should be hot and heat should be placed at the feet.

Sometime during the latter part of the afternoon or the evening a neutral bath, lasting for one-half to three-quarters of an hour,

Tubercu-
losis,
Hemorrhage

Consump-
tion, Gallop-
ing, Treat-
ment

should be taken. This bath should be at about the temperature of the body (98 degrees F.), though the water may be warmed considerably before leaving the bath, the idea being to add to the comfort of the patient. Should there be a material rise in the temperature in the afternoon, with considerable fever, as is frequently the case, the chest pack may be given at this time.

In many instances where there is trouble with the milk diet in this disease, as, for instance, if diarrhea should supervene, a change to one of the Combination Milk Diets (No. 3 or 8) or Milk and Fruit Diets (preferably No. 3) for two or three weeks will so improve the digestion that milk can be digested satisfactorily thereafter.

If the patient is not so weak as to be confined to bed he should be encouraged to walk about and take mild exercises of various kinds, though any exercise violent in nature should be rigidly avoided. Walking until slightly fatigued each day, for instance, would be advantageous. Beyond these suggestions the general routine should be similar to that outlined above for treatment of the chronic form of this disease.

Remember that sun- and air-baths are of great value in acute and chronic tuberculosis, though in beginning sun-baths one should avoid sudden exposure of the entire body. It is far safer first to expose the feet during one exposure, then up to the knees in the next bath and to progress in this manner daily or every two or three days until the entire body is exposed. In cases subject to hemorrhages or unfavorable reactions sun-baths must be used with great caution. Any pronounced reaction in the tuberculous process calls for discontinuing the sun-baths immediately and not resuming them until the former condition of improvement has been restored.

TUBERCULOSIS, ACUTE MILIARY (*Disseminated Tuberculosis; General Tuberculosis*).—An acute form of tuberculosis generally distributed throughout the body instead of being localized in some particular organ or tissue. In most cases the exciting cause is the breaking down of a tubercle in the lungs, intestines or joints, thus liberating and spreading germs.

Tubercu-
losis, Acute
Miliary

The actual and most fundamental causes are wrong habits of living which bring about the toxemia that permits the infection and the lowering of the vitality which allows the germs to grow and the infection to spread. Lack of fresh air, sunshine, proper food and exercise are the chief causes of all forms of tuberculosis. In acute miliary tuberculosis there are a particularly high degree of toxemia and low degree of vitality, thus making the condition serious. The disease usually occurs before the age of fifteen.

Tubercu-
losis, Acute
Miliary,
Symptoms

Symptoms. The course of this disease is rapid. There are progressive debility and wasting away, afternoon fever, night sweats, hectic flush on the cheeks, cough, rapid breathing, feeble pulse, irregular and sudden changes in the body temperature and later stupor and occasionally delirium. The symptoms somewhat resemble those of typhoid fever, for which it is often mistaken at the beginning. The disease seems sometimes to center in the brain, the lungs or the intestines. In such cases it gives rise to special symptoms, though even then it affects all the other organs and tissues of the body. It is supposed to be always fatal when fully established.

Tubercu-
losis, Acute
Miliary,
Treatment

Treatment. In acute miliary tuberculosis it is of the greatest importance to begin treatment early. The progress of the disease is generally rapid, so prompt measures will be required if it is to be checked. At the first sign of trouble Partial Fast No. 1, with orange juice as desired, should be immediately instituted, continuing if possible until the fever is gone. When fever appears, or as soon as it is definitely known that tuberculosis is present, encourage the desire to rest. The body needs all its available energy to eliminate the toxins. If at all possible the patient's bed should be placed on a porch of some kind, as the maximum of fresh air is of extreme importance. If necessary for a patient to be in a room the windows should be kept wide open, top and bottom, or better still, the sashes may be removed entirely. The cleansing forces of nature must be used to the greatest possible extent if this form of tuberculosis is to be cured. The oxygen in the fresh air is the most powerful of these forces.

Tubercu-
losis, Acute
Miliary,
Fruit Fast in

Water should be taken freely while on the fast. It may be either hot or cold as desired and flavored with a little lemon or orange juice, if such encourages the patient to take more. Water dilutes toxins and increases elimination in every way. In the case of a young child, or if the patient seems weak or is afraid of the complete fast, orange juice may be allowed in addition to water. From three to eight oranges a day may be allowed, depending upon the appetite of the patient.

This orange-juice diet should be continued, if possible, until fever is gone, but not longer than three or four days in the case of children or seven days in the case of adults. If the temperature does not return to normal within the period mentioned it will be advisable to start moderate feeding, because of the need of the patient for nourishment and because the frequent sweats will help to keep the fever down.

A full enema should be given on the first day and, if it seems necessary, on the second and third days. Otherwise, and thereafter, an enema of about one quart of luke-warm water will be

sufficient for daily use. Large enemas are too much of a tax upon the patient's energy and are to be used only when necessary. A tepid sponge bath should be given daily, or, if the temperature runs high, this bath may be cool. If there is much coughing, difficulty in breathing, or pain in the chest, a cold chest pack also may be given daily. This should be warmly covered so as to bring about quick reaction and should be allowed to remain for one to two hours.

If pleurisy should develop the cold pack will have to be replaced with a hot one, maintaining heat with a hot-water bottle. Hot or cold abdominal packs, depending on the patient's temperature, may also be used to advantage, especially if the intestines are affected and there is much gas and diarrhea. If both chest and abdominal packs are indicated, one should be given in the morning and the other in the afternoon. Usually, the abdominal pack would be given in the afternoon. Care must be observed not to overtreat, however; and if the patient's reactive powers are poor, not more than one pack should be given during any one day.

Tubercu-
losis, Acute
Miliary,
Pleurisy in,
Treatment

When the fever is gone the fast may be broken. On account of the strength and weight lost by the patient Milk Diet No. 3 should be instituted, though neutral baths for half an hour to an hour should be used before retiring. When this is taken don't use any other hydiatric treatment, as advised under Tuberculosis (which see). If fever is present but some feeding seems advisable, it would be well to take fruit juices for several days before starting the milk; or, if the patient has been taking these, a variety of acid and subacid fruits, including the pulp, may be used. Thereafter, the milk diet may be started in the usual way.

Tubercu-
losis, Acute
Miliary, Diet

The maximum quantity of milk should be limited to three quarts a day until all fever is gone, or, in the case of children, to about half the quantity that would be indicated by their age for a full milk diet. Oranges or other acid fruits may be allowed as desired with the milk when the quantity of the latter is limited.

The Milk Diet is especially indicated because of its building power. If Diet No. 3 is not well tolerated, Combination Milk Diet No. 3 or No. 6 may be substituted. If a satisfactory supply of milk cannot be obtained, the solid food taken should include fruits, vegetables and nuts, especially raw. In these cases Fast-Breaking Routine No. 1-A should be used.

If fever is still present after a week of the feeding, it would be well to take an orange-juice diet for one to three days, after which eating again may be resumed. The extra orange diet will permit more elimination and assist materially in reducing the fever which will be a favorable sign. Ultra-violet irradiations

every day for the first three days will also be helpful, later two or three times weekly, if not daily. (See *Light Therapy*, Vol. VI, Sec. 5.) The patient should be encouraged to maintain a hopeful, confident mental attitude, as depression interferes with every function of the body. While acute miliary tuberculosis usually is considered fatal, prompt treatment of the proper kind will make recovery possible. The patient should not be discouraged.

**Tuberculous
Abscess**

TUBERCULOUS ABSCESS (*Cold Abscess*).—This is a chronic collection of tuberculous fluid. It is often called “cold abscess” because the local symptoms usually are slight, none of the signs of inflammation being present in the usual abscess. Cold abscesses often develop to large size and frequently last for months before their presence becomes known. The tuberculous disorders giving rise to the abscesses are located, as a rule, in the spine, the hips, the genito-urinary tract and the lymphatic glands. The original disease may be present for months or even for years before the abscesses appear.

**Tuberculous
Abscess,
Symptoms**

Symptoms. The *general symptoms* are not those of any ordinary abscess, though there usually is a slight evening rise of temperature, with slight subnormal temperature in the morning—as in pulmonary tuberculosis. As a rule, flesh and strength are gradually lost, more or less anemia develops, especially if there is a mixed infection—a combination of tuberculous and purulent infection. The *local symptoms* usually are due to pressure upon the organs and the nerves. Usually no pain is present, there being not even tenderness to the touch. The skin over the abscess may be normal in color, as the abscess is deep-seated; but when about to break a dusky-red color develops. In some cases the skin becomes white—the condition being called “white swelling.” The swelling usually, but not always, is soft and may resemble a tumor in appearance and feeling.

Since their walls are lined with a cheesy tuberculous material, cold abscesses heal with difficulty. But under such treatment as will correct the general underlying condition and lead to absorption of the abscess fluid the caseous substance undergoes calcification, or hardening, and the abscess may be considered healed.

**Tuberculous
Abscess,
Treatment**

Treatment. The general treatment of tuberculous abscesses is the same as for pulmonary tuberculosis or tuberculosis elsewhere (See *Tuberculosis of Lungs*). Removal of toxic conditions, provision of an amply nourishing diet (with perhaps cod-liver oil) and open-air life with an abundance of sunlight are the chief factors of treatment. The body should be so exposed to sunlight that the greatest possible degree of pigmentation of the skin (tanning) is developed. The abscess may be in a location to rupture spontaneously. If so, its cavity should be exposed, if at all possible,

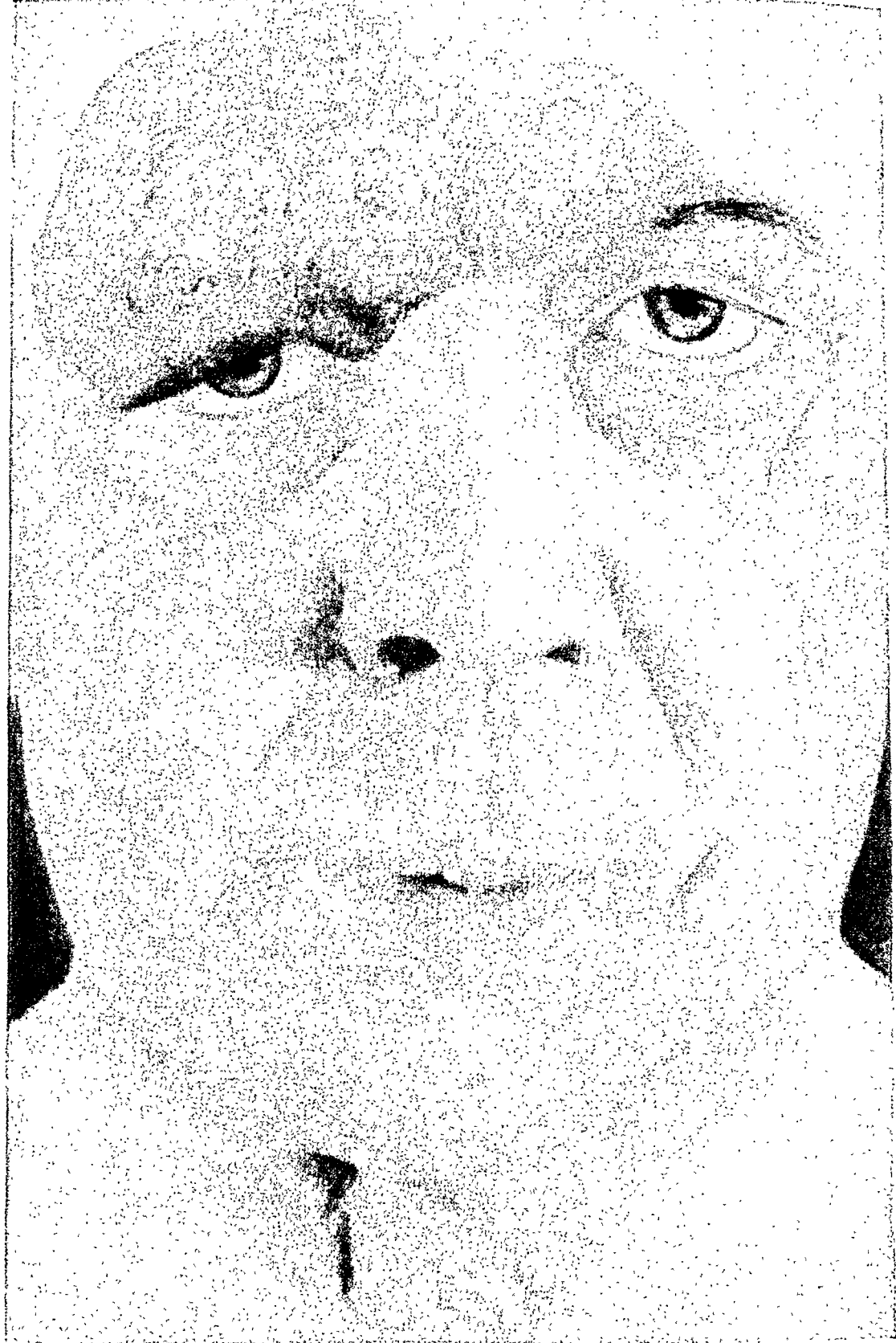


PLATE 109. Sarcoma. This malignant growth may occur in any portion of the body.

to either natural sunlight or artificial sunlight. If rupture cannot take place spontaneously, and there is resort to surgery, caution is in order, because tubercular abscesses lack the power of normal healing. Treatment of the abscess cavity, by natural or artificial sunlight or by peroxide of hydrogen (ten per cent.) or other means should be under the direction of a physician.

TUMORS.—Tumors in general may be defined as abnormal growths which differ more or less from the tissue in which they develop. They are characterized by an enlargement or swelling of the part affected. Usually inflammation accompanies the growth, but this rule is not invariable. They may be internal or external and may affect any part or organ of the body. The many varieties of tumors differ in their nature and effects, some of them being comparatively harmless (benign) and others of a malignant type.

Tumors

Treatment. Tumors are the result of an abnormal condition of the blood and of glandular action, so constitutional measures will accomplish a great deal toward cure. Probably some defect in the operation of the functional and blood-making organs gives rise to the formation of these morbid growths, the latter often arising from the presence of foreign matter circulating in the blood stream and being deposited in the cells of the affected region.

Tumors,
Treatment

Consequently a radical purification of the blood is necessary, so general eliminative measures should be adopted.

In most cases, fasting is the best of all remedies in treatment of tumors. In extended fasts, particularly, tumors may become appreciably reduced in size. In other cases fasting will purify the blood and prepare the body for building vitality and a more perfect nutrition; therefore, follow it with a milk diet. If one is at or above normal weight Complete Fast No. 2 or 3, continued to a "finish" if possible, is suggested; but if lowered in vitality and weight a fast of three or four days to two weeks is recommended, with appropriate fast-breaking routine and exclusive milk diet thereafter, or a diet such as Salad Diet No. 5 or 6. If much below normal weight, a grape diet could be taken instead of the fast or after a few days' fast.

Tumors,
Fasting in

In cases of *fibrous tumors* care should be taken in the use of flesh foods, inasmuch as meat seems to contain elements which furnish material for their future growth. In many instances, where the patient is reduced in weight and strength and where radical measures are necessary, Alternate Fast No. 5 is recommended. When not on a milk diet the free drinking of water (together with the use of enemas whenever necessary) is advisable.

Special treatments, selected according to the strength of the individual, may be used each day as a means of strengthening the

nervous system and arousing the activity of the vital organs. Occasional steam baths or wet-sheet packs, or neutral baths for an hour daily, or a prolonged warm shower bath or even general hot baths of 105 degrees to 110 degrees F. may be recommended for their eliminative and blood-purifying qualities. However, local hot packs should not be used, though sometimes cold applications will be of advantage, having a locally depressing influence and retarding the cell growth in the affected part. These applications must not be brief, since they then would be stimulating through the reaction. They should have the influence of continued cold. Evaporating compresses are good for continued cold application. (See *Water and Health*, Vol. VI, Sec. 2.)

For tumors located on the surface of the body steam baths are valuable. This treatment has a tendency to loosen the devitalized tissues and give the healthy tissues a chance to improve.

Above and beyond all these various measures, except fasting, active and vigorous exercise and long walks daily until fatigued are the most effective form of treatment when the patient's condition will permit. Exercise promotes active circulation and also brings about a vigorous condition of the vital organs. It entails a demand upon the elements contained in the blood for building up the structures broken down in the course of the exercise. These elements then will not be used in forming morbid growths. It also promotes rapid and effective elimination of foreign matter in the blood stream. In short, fasting and exercise are the two most important factors in the treatment, though a general vitality-building routine should be adopted and adhered to. In any event improved health will help to check future growth. In some instances tumors can be greatly diminished and sometimes entirely removed, as the result of these measures. The treatment for malignant tumors is much the same as that given elsewhere for cancer.

Tympanites

TYMPANITES (*Meteorism*).—Inflation of the abdomen with gas, either within or outside the intestine. (See *Flatulence*, and especially, *Peritonitis*.)

TYMPANITIS. Inflammation of the *tympanum* (ear drum) and the middle ear. (See *Ear, Diseases of*, for treatment.)

Typhoid
Fever

TYPHOID FEVER (*Enteric Fever*).—An acute eliminative crisis associated with the presence of the germ *Bacillus typhosus*. It is called enteric fever because the principal lesion is in the small intestine. This lesion consists of ulceration and sloughing of certain parts of the intestinal lymphatic tissue called Peyer's patches. The disease, which is most common during the autumn, exists throughout the entire world. It is much less prevalent, however, during recent years than formerly, largely because of

improved sanitation. The disease is one of youth and early adult life, usually between the ages of ten and thirty years, seldom being seen in persons above the age of forty-five or fifty years. One attack usually protects against any further attacks.

Typhoid fever usually is blamed entirely upon the *Bacillus typhosus*. It has as its exciting cause sewage-infected water or ice or infected foods such as milk, raw vegetables, or oysters. It may be spread also by flies. But few persons ever would have the disease if their intestinal tract were not foully corrupt with an accumulation of old, decomposed fecal matter which directly irritates the intestines and furnishes food for the germs. Numerous cases are on record where a group of persons drank water or milk affected with the bacillus and some developed the disease and some did not, depending upon their state of health. Infection also has occurred in persons who, as far as could be determined, had never been exposed to the germs in this way.

Typhoid
Fever,
Causes

Typhoid fever, therefore, may be considered due to dietetic errors and other wrong habits of living which produce a general toxemia and lead especially to an accumulation of poisons in the intestinal tract. Prevention consists in right habits of living and the avoidance of water from doubtful sources. It is inadvisable to depend upon anti-typhoid inoculations or even to submit to such, as these are by no means a positive preventive, but in many cases have produced harmful results.

Symptoms. This disease generally runs a definite course. In describing the symptoms it is usual to separate them into those of the different weeks the disease lasts. There is a period of incubation of 10 to 15 days during which there are symptoms of general malaise. The onset of the disease is insidious, the earliest symptoms being headache, which is persistent, weakness, loss of appetite, nosebleed and chilly sensations. The patient feels sick and as a rule goes to bed of his own volition. These symptoms last but a few days. The first week usually is computed from the time the patient takes to his bed. From that time the symptoms are grouped as follows:

Typhoid
Fever,
Symptoms

First week. The cheeks are flushed, tongue coated, there are headache, slight cough, distended abdomen which is somewhat tender, slight diarrhea and temperature gradually becoming higher each day. There is a lower temperature in the morning and a high temperature in the afternoon, but every succeeding day it reaches a higher point both morning and afternoon than on the day before ("step-ladder temperature"). By the end of the first week it generally is about 104 degrees in the afternoon, sometimes higher. The pulse is comparatively slow and develops a peculiar double beat called *dicrotic*.

Typhoid
Fever, First
Week,
Symptoms

Typhoid
Fever,
Second
Week,
Symptoms

Second week. There is mental torpor, the headache disappears, the facial expression is listless, the cheeks take on a mahogany flush, the pupils are dilated and the lips are dry. The temperature remains persistently high, the pulse generally is more rapid than during the first week, the tongue is very dry, dullness of expression is increased, the stools are loose and resemble pea-soup in appearance. There may be delirium, especially at night.

Typhoid
Fever,
Third Week,
Symptoms

Third week. The disease is at its height during this week. The general symptoms are about the same as during the second week except that they are more severe. The temperature, however, begins to remit somewhat in the morning but goes to the same high point at night, though by the end of the week it has a tendency to decline somewhat in the afternoon and evening. The pulse runs from 110 to 130 a minute. It is during this week that any unfavorable symptoms and *complications* are likely to occur. These are pronounced delirium, cardiac weakness, pulmonary affections (pneumonia or hypostatic congestion especially), intestinal hemorrhages, perforation of the bowel, etc.

Typhoid
Fever, Fourth
Week,
Symptoms

Fourth week. In ordinary cases convalescence now commences. The appetite begins to return, the temperature gradually falls to normal, the tongue clears, the mental and abdominal symptoms subside and the patient begins to look better although he is left extremely weak. In severe cases the symptoms in the fourth week become very serious. The face becomes bluish in tint, there is cold and clammy sweat, the tongue is cracked and dry, the lips are covered with sores (*sordes*—*sor-deez*), there are delirium and rapid pulse, the urine and the feces are passed involuntarily and there is congestion of the lungs. Some cases are protracted, convalescence being delayed for several weeks. Relapses may occur.

Beginning at the end of the first week a rash makes its appearance in about 70 per cent. of all cases. It is commonest upon the chest and the abdomen. It is small, rose-colored, slightly raised and disappears upon pressure to reappear upon the release of the pressure. The spots are few in number as a rule, there often being not more than a dozen or so. They appear in crops, each crop lasting about three days and disappearing, to be replaced by a succeeding crop. The rash persists throughout the second and part of the third week.

Typhoid
Fever,
Treatment

Treatment. The symptoms of typhoid generally begin gradually, but the patient should not wait for a definite diagnosis before starting treatment. As soon as he begins to feel bad he should start Complete Fast No. 3, this to be continued until all acute symptoms subside, even if it is two weeks or longer. The giving of food in a case of typhoid only retards recovery and increases the likelihood of complications, particularly intestinal perforation.

The water taken should have been boiled and then cooled to the proper temperature. It may be flavored with lemon juice. Regardless of the patient's age a little orange juice may be taken if an extended fast seems too weakening. However, because children generally respond quickly they will not need to fast so long. The sooner fasting is started the fewer the number of days it will be required.

An enema should be given daily while fasting and until normal movements are obtained after eating is resumed. The enema should be moderately hot and all the patient can take comfortably on the first two or three days and warm and only from one-half pint to one quart on the succeeding days, depending upon the age of the patient. A cold abdominal pack should be given for an hour or two daily. During the first week this may be substituted by a general cold-sheet pack every other day, or daily if the fever goes high. Reaction from any cold application must be assured and extra blankets or hot-water bottles may be necessary while the patient is in a cold pack. In extreme cases where the fever is persistently at 103 degrees or above, the Brand bath should be employed every three or four hours. (See *Water and Health*, Vol. VI, Sec. 2.)

Typhoid
Fever,
Enemas

Care always must be observed not to overtreat the patient. When the Brand baths are employed no other form of hydrotherapy but the daily enemas should be used, except perhaps for the stronger individuals. The aim of the treatment should be to assist the body in elimination, not to suppress the symptoms. Complete rest in bed is necessary to conserve the energy of the patient; but plenty of fresh air should be provided.

The fast should not be broken until at least 24 hours after all fever is gone, preferably not for another similar period. Beginning to feed too soon is likely to produce a relapse. *Hence, breaking the fast should be done very gradually.* Generally, the first day, it is well to take nothing but the juice of three or four oranges (for an adult), diluted with an equal or greater quantity of water.

On the second day the juice of five to perhaps eight oranges may be taken, diluted as before. On the third day the juice of eight to twelve oranges may be taken without dilution. On the next day the same number of whole oranges may be eaten, instead of merely the juice taken. If pure fresh unsweetened grape juice can be obtained this may be substituted for the orange juice if preferred or if it seems to agree better with the patient.

After this period on fruit, the milk diet may be started, sour milk being preferable to sweet. It would be well to begin with Milk Diet No. 3, changing if desired to Milk Diet No. 5 after a week or ten days. If sour milk is not well tolerated, Milk Diet

Typhoid
Fever,
Fast in

No. 3 may be used regularly. One of the regular diets where the milk is taken in small quantities at frequent intervals is to be preferred to a milk and fruit diet where larger quantities are taken at one time. It would be well to increase the quantity gradually in any case. Lemon juice may be added to each glass of milk.

After reaching three quarts a day the quantity should not be increased for several days. Each time the daily quantity is increased by a pint (until five quarts are taken) the new quantity should be taken a few days before further increasing it. The maximum quantity should never be greater than can be handled with comfort by the patient. Even when the appetite is keen, as often is the case, the greatest quantity should not exceed six quarts a day.

Enemas should be continued as necessary until the bowels move naturally. A cold abdominal pack may be administered every other day, observing care to see that the patient is thoroughly warm before the pack is applied. When the patient is able to be up and around a daily alternate hot and cold sitz-bath may be taken a few days. (See *Water and Health*, Vol. VI, Sec. 2.)

A vitality-building routine suited to the strength of the patient should be started a few days after beginning the milk diet. Activity must be resumed gradually, however, and the patient should be allowed plenty of time for convalescence. This generally is slow, even after the best of treatment. Fresh air and sleep are especially important. The milk diet should be continued until definitely certain that full recovery has been established. Even then it would be well to continue with one of the Limited Diets for some time thereafter. (See Vol. VII, Sec. 6.)

When the above plan of treatment is followed complications are not likely to occur. Diarrhea should never be suppressed. The fasting and the enemas will prevent it from becoming so excessive as to weaken the patient. Slight hemorrhages require no treatment. If larger ones occur it would be well to elevate the patient's hips and to apply cold compresses, with, perhaps, an ice-bag on top, to the abdomen. The patient should remain as quiet as possible. In cases extremely toxemic to begin with, perforation of the intestine, with resulting peritonitis, occasionally develops. These cases may require operation. If the patient begins treatment promptly, however, he should have no need to fear such extremes. Though great claims have been made for anti-typhoid vaccine, judgment must be suspended here. The symptoms may be so reduced that the classical "picture" of the disease described under *Symptoms* will be greatly modified.

TYPHUS FEVER (*Jail Fever, Putrid Fever*).—An acute eliminative crisis characterized by a sickening odor of the breath and

Typhoid
Fever,
Vitality
Building

Typhus Fever

the perspiration, in addition to the usual symptoms of fever. It is supposed to be due to a special bacillus transmitted by the bite of lice; but as usual the bacillus plays only a minor part. The real causes are the toxemia and lowered vitality associated with improper food and feeding, lack of fresh air and sunshine, overcrowding and general unhygienic conditions. The disease often is called Jail Fever because it occurs among prisoners who have to live under unhygienic conditions. People who have a good environment and who live rightly in general never suffer from typhus fever.

Symptoms. There is an incubation period of ten to twelve days, but there are frequent deviations from this period, varying between five to fourteen days. The onset is abrupt, with chills, pain in the back and legs, headache, nausea, sleeplessness, coma vigil (muttering delirium in a semiconscious state) and prostration. The facial expression is dull and listless, the face is flushed, the temperature is high at the beginning and stays high for about five days, the pulse is rapid and the tongue coated. There are constipation and some bronchitis.

Typhus
Fever,
Symptoms

At about the fourth or fifth day a rash appears, beginning in the armpits, on the wrist and the abdomen and spreading to the chest and the extremities. It is rare on the face and the neck. The rash consists of papular spots, irregular in size and shape. It is slightly elevated and is pinkish, sometimes darker. In the early stages it will disappear on pressure; later on it often resembles flea bites. It is extensive, and continues to appear for two or three days. Later on in the disease there may be delirium, most marked at night and often violent; in other cases there is coma. Patients have a peculiar "mousey" odor. At about the tenth day there are extreme prostration, stupor and coma, with tremors. The disease lasts about fourteen days, when it terminates suddenly by crisis, the patient falling asleep and waking perfectly conscious, with a rapidly falling temperature. Convalescence is rapid and relapses never occur.

Treatment. Treatment of this disease may be somewhat difficult because the facilities necessary are not available. If the patient could be removed to a good environment and then given the ideal treatment, he would soon recover; but this seldom can be done. However, fasting is always possible. This will take care of the acute reaction. It is the after-treatment which will be the most difficult. The treatment, if possible, should be that given for typhoid fever, though the shorter duration of the disease makes it possible to discontinue therapies sooner.

Typhus
Fever,
Treatment

When possible, special attention should be given to the cold packs, the Brand bath, or other hydiatric applications advised

for typhoid fever. Cold packs or cold effusions to the head are especially important. Fasting, enemata and copious drinking of previously boiled water are absolutely essential, until symptoms disappear. In short, Complete Fast No. 3, Fast-Breaking Routine No. 2, followed by Milk Diet No. 3 or 5 is suggested. However, in most cases it probably will be necessary to use solid food after the fast, employing the best available.

The diet should be composed as nearly as possible of fruit, vegetables and sour milk or nuts. Raw foods, thoroughly washed in previously boiled water, should constitute the bulk of the diet. No matter what food it may be necessary to use, the patient always should start eating very gradually, masticate thoroughly, and carefully avoid overeating. A vitality-building routine suited to the strength of the patient should be adopted and adhered to as nearly as possible. Fresh air, sunlight, sleep and cleanliness are especially important.

Ulcers

ULCERS.—Open and running sores which appear externally and internally on any part of the body. They may be an accompaniment of other ailments. At all times they are to be regarded as of some gravity, especially when they form internally. Ulcers may appear as an independent local condition, though they always are associated with some disturbance of the venous circulation.

Ulcers,
Treatment

Treatment. As ulcers are due to an abnormal, unbalanced chemical condition of the blood, the treatment must be directed to purification. Local treatment usually consists in insuring cleanliness of the affected parts and the use of sun-baths. In external ulcers no treatment, except dietetic, can compare with sun-baths, either local or general, natural or artificial. These are of value in internal ulcers, especially gastric and duodenal.

If the ulcer is very painful, hot compresses may be applied, the water being sterilized by boiling so as to prevent the possibility of infection. In the treatment of ulcers, fasting is of the utmost importance. Complete Fast No. 3 is preferred for quickest and most satisfactory results. Simultaneously with the fasting treatment, care should be taken to cleanse the alimentary canal; enemata usually are necessary. The duration of the fast should depend upon the weight and strength of the patient, though a short fast usually will be sufficient, to be followed, if convenient, by Milk Diet No. 1, or No. 11. Later, this diet may be varied by Milk and Fruit Diet No. 1 or 2. Occasionally the ulcer is of tuberculous or syphilitic origin. Its cause must be accurately fixed. In addition, the general constitutional treatment given elsewhere for the treatment of boils should be followed. One-hour neutral baths before retiring will hasten blood purifying processes. Ultra-violet light in large doses is often recommended.

UNCONSCIOUSNESS.—Loss of sensibility and volition may occur suddenly or gradually, and may be the result either of injury or disease. In most cases consciousness returns automatically, as after a faint, but sometimes special treatment may be required. (See *Apoplexy*, *Catalepsy*, *Coma*, *Fainting* and *Trance*. See also *Fainting* under *First Aid in Accidents and Disease* (Vol. VII, Sec. 5), for treatment of unconsciousness due to injury. For unconsciousness due to epilepsy see *Epilepsy*.)

Uncon-
sciousness

UNDEVELOPED MALE ORGANS.—In considering this matter it is important in each individual case to determine whether the male organ is naturally small or whether it is really undeveloped. It may be very small and yet retain all of its normal functions. There is a great variation in the size of the male generative organ, but size apparently has nothing to do with functional capacity. There often is considerable worry among males whose genital organs are small, as they fear that such a condition may interfere with the marital relation. But this worry is unnecessary, for usually it will be found that the female parts will adapt themselves to the male organ, unless there is a great disproportion in size or the female parts are very lax through loss of tone.

Unde-
veloped Male
Organs

Undeveloped organs are not common; in fact, what may seem to be an undeveloped organ is more likely to be one that is wasted or atrophied due to excesses or abuses. But undersized organs, whether naturally small, undeveloped or wasted, often may be improved by an all-round constitutional treatment. Sexual power is dependent upon the condition of the body as a whole; therefore general vitality building should be persisted in. The muscular system especially should be built up. With its development a better condition will ensue, with greater power of the generative system and perhaps greater growth.

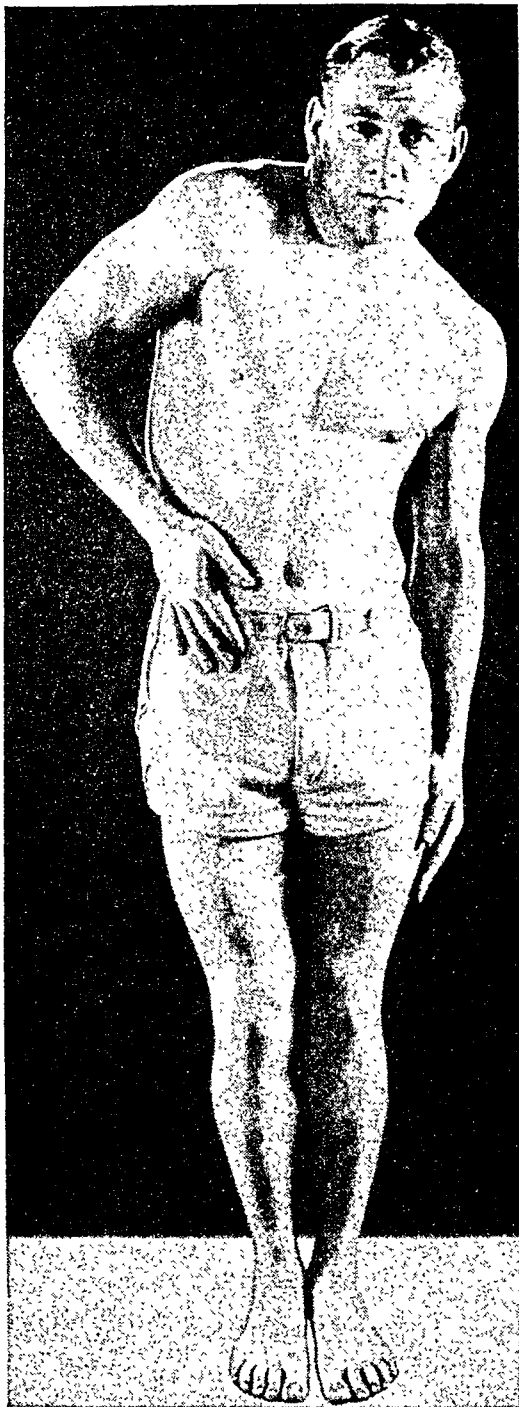
Deformities and curvatures of the male organ may require surgical attention, combined with general constitutional measures. (See especially *Hypospadias*.) Many mechanical devices are recommended for use in these cases of undeveloped organs, but their value is questionable. Vacuum pumps have been used to increase the size of the organs by bringing an increase of blood to the parts; but they are not commended, as they may be harmful in some cases. The use of cold water and cold sitz-baths is to be highly recommended, though alternate hot and cold sitz-baths will usually be beneficial.

Unde-
veloped Male
Organs,
Treatment

UNEVEN SHOULDERS.—One shoulder may be higher than the other as a result of careless posture, habitually standing with the weight on one leg, or to some occupation necessitating unequal pressure on the shoulders. Letter carriers and soldiers often develop uneven shoulders from carrying their packs or

Shoulders,
Uneven

Shoulders,
Uneven,
Treatment



For Uneven Shoulders. Starting in standing position with hand flat at side of thigh, the shoulder is brought upward as far as possible, as here illustrated. Hands are returned to original position, and the movement repeated as long as endurance permits. This exercise is to be performed slowly, and every effort is to be made to bring the shoulder to the highest point possible, with the hand in position shown.

Uremia

guns always on one side. This unevenness of shoulders may or may not be associated with spinal curvature, but in most cases a curvature will develop in time. However, it is generally functional so that exercise to normalize the shoulders will be sufficient to correct it.

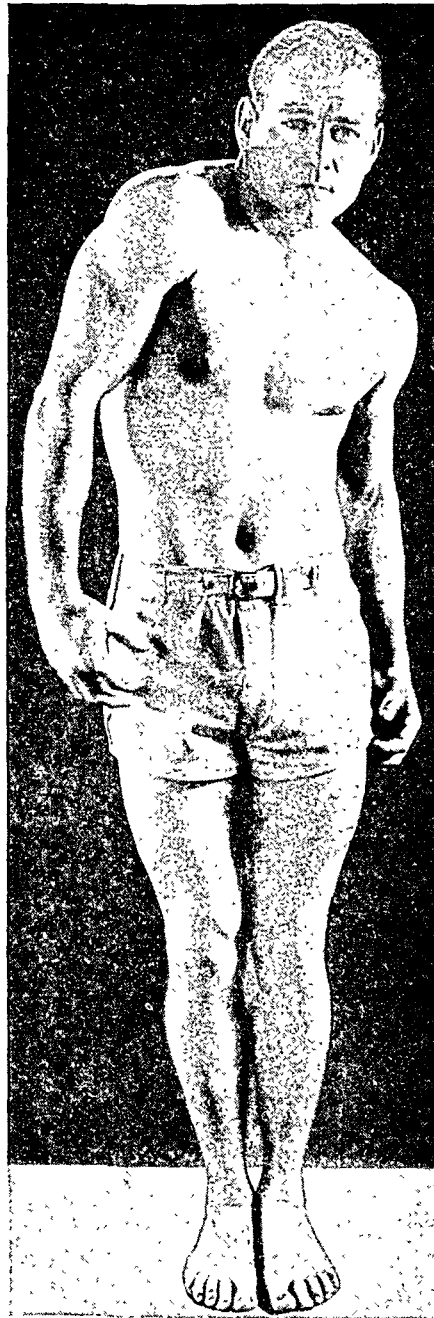
Treatment. The treatment of this condition is simple, though it may require persistent effort. First of all, the causes should be removed. After this, or while it is being removed, attention is given to special exercises for raising the depressed shoulder, which is usually the abnormal one. These include raising that shoulder as high as possible by voluntary effort (shrugging the shoulder), raising the arm on that side overhead, and the movement illustrated herewith. Weights may be used with these exercises after some strength has been gained. Hanging from a bar for short periods with the arm on the same side as the lowered shoulder is also helpful. Attention should be given to general as well as special exercises, particularly back movements. A general vitality-building routine should be followed carefully in order to increase the energy and the resistance to adverse conditions in the environment.

UREMIA.—An autointoxication which results from failure of the kidneys to excrete the foreign matter that should pass through them. These toxins

are then absorbed into the blood stream, making it necessary for the body to adopt unusual eliminative measures. Uremia is most often associated with nephritis, especially that occurring during pregnancy or after childbirth. It may be due to anything, however, which causes an anuria, or suspension of excretion of the urine. It can and should be prevented by proper diet and due attention to elimination through the skin, the bowels and the kidneys themselves.

Symptoms. There are considerable diminution or complete suppression of the flow of urine, headache, drowsiness, often vomiting, muscular twitching or spasms, coated tongue, heavy breathing, contracted pupils, sometimes delirium, unconsciousness and coma. There may be hiccough, the breathing may be noisy or hissing or Cheyne-Stokes in character, and there may be a urinary odor to the breath and the perspiration. In Cheyne-Stokes breathing there is gradual increase of depth of respiration up to a certain point and then a decrease, with finally cessation of all respiration for about a quarter minute and then resumption of the gradual increase.

Treatment. An attack of uremia, being practically always associated with either coma or convulsions, requires energetic measures for relief. Increase of skin activity is of first importance, as this substitutes to a considerable extent for the lost or greatly reduced kidney function.



Uremia,
Symptoms

For Dropped Shoulders. The object of the exercise here illustrated is to bring the shoulder-cap as far forward as possible. The movement is to be repeated as many times as possible for each series of exercises. After every movement, the shoulder is dropped to normal position and the exercise repeated.

Uremia,
Treatment

If convulsions are present a hot immersion bath, at 103 degrees to 108 degrees F., should be given, to be continued until the convulsions cease. The patient should then be removed from the bath and given a quick, cool sponge bath and well covered with blankets in order to produce free perspiration. A cold turban should be kept on the patient's head while in the bath and while perspiring. A cold sponge bath should finish the treatment. If the tub bath is not available, a hot-blanket pack may be used instead, employing the cold turban as already directed. The pack also should be followed by a cool sponge bath. (See *Water and Health*, Vol. VI, Sec. 2.)

If coma develops and the temperature is normal or nearly so, the treatment just outlined should be employed. If the temperature is high, however, a cold wet-sheet pack should be given instead, continuing for four to eight hours unless there are definite signs of improvement or need for earlier removal of the pack. The pack should be renewed every hour or two by opening the blankets and sprinkling the sheets with cold water without removing them. A cold turban should be used, and when the pack is removed a quick cool sponge bath should be given.

In any case after the coma or convulsions have been overcome, a hot-blanket pack or a cold wet-sheet pack, depending upon the patient's temperature and reactive powers, may be given daily until all the acute symptoms subside. A complete fast is necessary, Complete Fast No. 3 being chosen, as the large quantity of water will assist both skin and kidney action. A full hot enema should be given daily unless the patient becomes weak, in which case the temperature and quantity of the water may have to be somewhat reduced. An ample supply of fresh air is of primary importance.

When the acute symptoms have subsided the fast must be broken gradually, using acid fruit juices for two days and the whole fruit for one day more. Milk Diet No. 3 should then be employed. The milk is especially important, as it is the easiest diet for the kidneys and also keeps the skin active. Enemas are to be employed as necessary and special attention should be given to deep breathing of fresh air. A steam bath, neutral bath, prolonged shower bath, or some other kind of sweat bath may be taken every other day for the first week of the milk diet and twice a week thereafter for a month. After the crisis is past the necessary treatment should be given for the nephritis or other condition giving rise to the uremia. Mild doses of ultra-violet light may be an aid in any case, but must be employed with caution. (See *Anuria, Coma, Convulsions, Eclampsia, and Kidneys, Diseases of.*)

URETHRA, STRICTURE OF.—See *Stricture of the Urethra.*

URETHRITIS.—This is an inflammation of the urethra, characterized by pain and a discharge. There are two varieties of urethritis, the simple and the specific. The latter variety is gonorrhea (which see). The symptoms of these two varieties sometimes are much alike, so it is often difficult without the aid of the microscope to distinguish between them. For in gonorrhea the specific germ, the *gonococcus*, is present in the discharge, while it is absent in the simple form of the disease.

Urethritis

Simple urethritis may be a mild condition, easily cured; but if it invades the deeper structures of the urethra it may be severe, though in either event it usually is not as severe as gonorrhea.

Simple urethritis may be caused by inoculation, during sexual intercourse, from discharges due to inflammation of the uterus, vagina, or other parts of the female organs, or it may arise as the result of an injury to the parts, as by violent coitus, the injection of irritating chemicals, the use of unclean instruments or their clumsy or improper manipulation, from the long continued use of catheters, or from one or more constitutional conditions, such as syphilis, rheumatism and gout. It may be said, however, that specific urethritis is much more common than the simple form.

The *symptoms* of simple urethritis are an itching or smarting of the urethra, especially during the passage of urine, a discharge of mucus or pus and some pain on urination.

The *treatment* is practically the same as for gonorrhea, with special attention to the drinking of large quantities of water, fasting and attention to the bowels. Strong injections should not be given, though mild solutions may be used toward the end of natural treatment if a discharge or other symptom remains.

Urethritis,
Treatment

URICACIDEMIA.—This is a constitutional condition which sometimes is termed *Latent Gout*, *Uric-Acid Diathesis*, or *Lithemia*. It arises from a disturbance of the metabolic processes and the accumulation of uric acid in the blood.

Uricaci-
demia

Symptoms. There is an excess of uric acid in the blood (from which the condition is named), combined with digestive disorders and various nervous symptoms. There are constipation, a furred tongue, poor appetite and sometimes acid dyspepsia. Usually the patient complains of cold feet; often there are headaches, neuralgia, or pain in the lumbar region. This disease is distinguished from gout by the absence of deposits of urates in the smaller joints. However, it may lead to gout, or to various other diseases, such as arteriosclerosis, kidney or liver trouble or a serious nervous disease.

Treatment. The treatment of this disease is comparatively simple. It requires such active elimination of waste material in

Uricaci-
demia, Treat-
ment

the body and building up vitality and functional vigor as will bring about normal metabolism.

The eliminating treatment should include considerable exercise, steam baths, cold wet-sheet packs, etc. The free drinking of water is highly important for remedying constipation; in many cases fasting and various modifications of the diet should be followed. Beyond the suggestions here given the reader is referred to the specific routine, advised in the case of gout, also of acidity of the blood (which see). The general treatment for these maladies will answer in this case.

URINARY INCONTINENCE (*Enuresis*).—See *Bed-Wetting* and *Incontinence of Urine*.

Urine Ex-
amination

URINE, EXAMINATION OF.—In the diagnosis of Bright's disease, diabetes and several other conditions it is imperative to have a knowledge of the condition of the urine.

In health the normal excretion of the kidneys is a clear, amber-colored fluid, of a characteristic odor and an acid reaction. The amount (in adults) voided in twenty-four hours should be from forty to fifty ounces or an amount varying from a little less to a little more than three pints. The specific gravity of normal urine will vary between 1.015 and 1.025. Urine consists chiefly of water in which organic and inorganic substances are dissolved. Of the organic substances, uric acid and urea are the most important; of the inorganic substances to be found, chlorides, sulphates and phosphates of sodium, potassium and calcium may be mentioned. Specific gravity is the weight of a fluid in comparison with distilled water. The amount of solids determines the specific gravity of urine. The specific gravity of urine is determined by a simple, inexpensive instrument called a urinometer.

In disease the urine often becomes changed in appearance, quantity, specific gravity and in chemical constitution. It also may contain substances foreign to the urine in health. When it contains an admixture of pus or undissolved salts it is turbid or cloudy. This is the case in simple urethritis or catarrh of the urethra, in gonorrhea, prostatitis, catarrh of the bladder and abscess of the kidney.

Urine,
Alterations

In some conditions, especially in cases of bladder tumor or kidney stone, the urine takes on a reddish tinge from admixture with blood. In catarrh of the bladder the urine frequently changes in chemical reaction from acid to alkaline. The chemical reaction of the urine is easily determined by a simple test with litmus paper: if a strip of pink litmus paper dipped in urine changes to blue, the urine is alkaline; if, on the other hand, a blue strip dipped in the urine becomes red, the urine is acid. Alkaline urine usually has an unpleasant odor, due to premature decomposition.

The amount of urine often is considerably *diminished* in acute Bright's disease and considerably *increased* in chronic Bright's disease and diabetes. In the first disease, however, the specific gravity of the urine is *low*, while in most cases of diabetes it is abnormally *high*.

Among the abnormal substances found in urine, albumin and sugar are the most important.

In some disorders of the functions of the liver, especially if jaundice be present, the urine may contain the coloring matter of the *bile*. In this case the urine will be dark. Almost every specimen of urine, upon standing, will show some sediment which can be examined under the lens of a microscope. Such an examination may furnish useful information.

URINE, RETENTION OF (*Anuria*).—This is to be regarded as a symptom rather than a disease in itself. It may be partial or complete and may arise from muscular failure due to lack of nervous stimulus, to obstructions or to impacted calculus. It frequently indicates some disease of the bladder, so the general treatment for diseases of the bladder as given elsewhere should be followed. (See *Bladder, Diseases of*.) Retention of urine may be the exciting cause of cystitis or other affections of the bladder, or inflammation of the kidneys. Stricture may be the cause. (See *Stricture of the Urethra*.) In elderly men it often is an indication of an enlarged prostate gland.

Urine,
Retention

Suppression of Urine is really a condition of renal insufficiency. In other words, it is due to failure of the kidneys to excrete. This is a symptom of kidney disease so should be treated according to the method advised elsewhere for diseases of the kidneys. Suppression of urine, if not relieved, will give rise to uremia, ultimately to convulsions, coma and death. (See *Uremia*.)

Urine,
Suppression

Extravasation of Urine, the result of either obstruction or retention, consists of a bursting of the urethra or the bladder followed by the effusion of the contents into the surrounding cellular tissue. There is little discomfort immediately, but in half an hour there is a burning sensation followed by pain and rapid swelling of all adjacent parts.

Urine,
Extravasation

Treatment. Hot sitz-baths followed by hot packs usually will bring relief in a case of retention of urine, though where there is a lack of nerve stimulus, hot and cold applications over the bladder combined with hot applications to the lumbar spine may be recommended. In case of prolonged retention, a hot-blanket pack or a full hot bath at 110 degrees to 115 degrees may be employed to relieve the kidneys and temporarily establish the skin as the main channel of elimination. A full hot enema at 115 degrees likewise will prove effective in nearly all cases of this kind.

Extravasation of urine is a serious condition and should be treated by means of hot-blanket packs, hot sitz-baths and hot abdominal packs, hot enemas and absolute fasting. Surgical help may be required to relieve the tissues of the poisons by means of incisions and to repair the damage that caused the extravasation.

URTICARIA.—See *Hives*.

Uterine
Diseases

UTERUS, DISEASES OF.—*Varieties*. Among the organs peculiar to women, the uterus is the most liable to disorders of various kinds. Among these may be mentioned acute and chronic inflammation of the uterus (*metra*) which may affect the lining membrane of the uterus, when it is called *endometritis*, or the muscular coat and substance of the uterus, when it is termed *metritis*.

Endome-
tritis

Endometritis may be restricted to the membrane which lines the cervix or neck of the uterus, or it may invade the lining of the entire organ. Endometritis commonly is called catarrh of the uterus.

Acute Endometritis produces slight fever, headache, general debility, loss of appetite, pains in the back, lower part of the abdomen and the pelvis. There usually are some burning in the vagina and itching. The discharge, which is copious, is viscid and sometimes tinged with blood.

Chronic Endometritis gives symptoms similar to the acute form, though not so severe. The principal symptom, and sometimes the only troublesome one, is the discharge, which is either clear or opaque and yellow. Sterility often is a result of this disease.

Metritis

Acute Metritis is a rare disease except following a confinement, where some infection may have taken place. The symptoms are chills, fever, rapid pulse and breathing, nausea, local pain and tenderness and a discharge.

Chronic Metritis is conceded by many to be the most common disease of women. The symptoms are weakness in back and limbs, pain in the lower portion of the back, disordered menstruation, more or less profuse leucorrhea, constipation, depreciation in general health, lack of vitality, and a tendency to abortion.

Inflammation of the uterus, which may occur at any time during adult life, may be caused by sudden chilling of the body, or by exposure to cold during the menstrual period, though only if the general health is poor, making one more or less susceptible. It sometimes is produced by taking emmenagogues (medicines intended to stimulate the menstrual flow), the use of irritants to produce abortion, the employment of violent purgatives for the same purpose or for other reasons, the insertion of instruments and preventives, solitary vices and sexual overindulgence. It also may result from any of the various displacements of the uterus, sometimes by horseback riding, bicycle riding or dancing,

though in these latter instances it usually will occur only if these exercises are carried to excess and the woman is inclined to be weak and underdeveloped. But along with these causes should be considered the numerous general or predisposing causes listed in the section entitled *The Expectant Mother* (Vol. IV, Sec. 4.) including those things which tend to lower the vitality, weaken the body, and alter the blood supply. Constipation is a prominent cause and a source of aggravation in many cases.

Treatment. In treating an *acute case*, adherence to Complete Fast No. 2 is advised. It might be well to continue this routine for seven to fifteen days, though in some instances three or four days will be sufficient. Follow with a fast-breaking routine adapted to the length of the fast. If the weight is normal or above normal, a milk diet is not desirable, but if there is any assimilative disorder the milk diet would be of special value. However, if two or three days after breaking the fast there are not decided signs of recovery, it would be well to use Fruit Diet No. 3 for three or four days, when Fruit Diet No. 6 may be taken for a similar period. Enemas may be used both during the fast and afterwards to insure cleansing of the bowels.

Uterine
Diseases,
Treatment of
Acute

Hot sitz-baths are of especial value. In some instances, hot and cold sitz-baths are to be recommended, changing from hot to cold twice in the morning and again in the evening. This treatment, with little or no change in one's routine, often will effect a cure. But if there is severe pain of any kind it is better to avoid the cold sitz-bath, confining oneself to the hot sitz. Hot hip packs may be used in some cases with benefit.

Uterine
Diseases,
Sitz-Baths in

Douches are of value and while the acute symptoms continue should be taken once or twice daily. As a rule, it is advisable to have the water to be as hot as can be comfortably borne.

The treatment of the *chronic forms* of this disease consists in increasing the general vitality. Complete Fast No. 2 is advised, to be followed for two to five days, if the patient is thin. If the weight is normal or above normal, the fast may be continued for a longer time. Use the fast-breaking routine adapted to the length of the fast. The diet followed thereafter is not of great moment, provided it consists of wholesome articles of food and insures proper activity of the alimentary canal. If the assimilation is especially good, Cereal Diet No. 1 or No. 3 may be taken. Salad Diets No. 1 and No. 5 or 6, with or without milk, also would be of value.

Uterine
Diseases,
Treatment of
Chronic

Physiological changes necessary to cure this disease must come in the blood. When this is cleansed of effete matter the inflammation will soon disappear. In all cases, select exercises adapted to the patient's strength from the general vitality-building routines

Uterine
Diseases,
Exercise in
Chronic

and follow them day by day. Special Manual Treatments Nos. 11 to 16 or Self-Applied Exercise Movements Nos. 1 to 6 are of special value. Walking and light outdoor recreation and even moderate work will hasten recovery. The treatment of *endometritis*, or inflammation of the membrane lining the uterus, is the same as that above described.

Cancer of the Uterus. This disease appears most frequently among women of mature age and is of a profoundly serious character unless early constitutional treatment be adopted in the initial stages, or the uterus be excised in the early stages of the growth.

The *symptoms* which accompany such cancer are a mucous discharge and slight hemorrhages. The discharge at first is watery and not offensive, but later becomes foul. The bleeding often is mistaken for increased or false menstruation; but unlike the normal flow, it often continues for some days after the monthly period is passed. Apart from this discharge no other external sign betrays the beginning of the growth; but internally its development takes the form of a morbid thickening of the mucous membrane lining the uterus. Nodules of various sizes appear upon the surface. These nodules have the feel and the appearance of a piece of cauliflower. They are fungus-like in character. As this cancerous proliferation extends, the leucorrhea-like discharge becomes purulent and hemorrhages increase in frequency.

As the disease progresses there are pain and tenderness in the pelvic region. The pain is either dull or of a sharp, lancinating character, but is not constant until the condition is well advanced. There are progressive emaciation, loss of strength, anemia, a peculiar expression to the face, a straw-colored skin (cancerous cachexia) and, as the disease spreads to other parts, there is pain on voiding urine and when the bowels are emptied.

Hemorrhage from the Uterus. See *Cancer of the Uterus*, *Menorrhagia* and *Metrorrhagia*, under *Menstruation*.

Uterus,
Tumors

Tumors of the Uterus. Besides cancer, benign or non-malignant tumors may develop in or upon the uterus. These may be of several types, principal among which are (a) *fibroid tumors*, composed of muscular and fibroid elements in varying proportion. These may develop beneath the mucous membrane, in the substance or upon the surface of the uterus. (b) *Fibrocystic tumors*, consisting of a muscular and a fibrous shell and a softened center, containing more or less fluid of a varying consistency. (c) *Uterine polypi*, fleshy tumors that are soft and vascular, attached to the inner surface of the lining of the uterus by thin stems or pedicles.

The growths immediately above are non-malignant, but there always is a possibility that at some time they may become more or less malignant, so they should not be neglected.

The *symptoms* of tumor of the uterus are symptoms of pressure, dragging pain in the back, heaviness in the pelvis, nervousness, headache, constipation, irregular menstruation, an occasional discharge which may be tinged with blood from time to time, urinary disturbances and in the severe cases, the discomfort which comes from a distended abdomen.

Treatment. For the treatment of cancer of the uterus, see *Cancer*. Tumors, as above suggested, should be treated in the same way.

UTERUS, DISPLACEMENTS OF.—Displacements of the uterus are among the most common of all female troubles. It often is said that Nature was guilty of a great error in so placing the uterus that it is held up only by soft tissues and is so easily subjected to displacements. But Nature was not in error; she provided well enough in this respect. The fault lies in the perverted mode of life of the modern civilized woman, not the least perverse of which perversions concerns dress. Worse than senseless styles are responsible for unnatural physical weakness in countless women. It is this weakness which makes possible these displacements of the uterus.

Uterine Dis-
placements,
Causes

The uterus is held in place by adequate ligaments. In addition to these it has the support of the muscular structure of the vagina and of all other local tissues and muscles, when they are firm and in good condition. Thus bodily vigor is needful in women, not merely on account of the desire for strength for the external muscles, but because internal muscular structures also demand it.

The causes of uterine displacements are said to be of two kinds, active and passive. The passive causes are those mentioned above, such as laxity of the supports, together with an impoverished condition of the blood and general body. Pure blood always makes for a high degree of vitality and tonicity in all the tissues of the body. Active causes may be many and various, among them being corsets, heavy clothing hung from the waist, constipation, incorrect carriage, high heeled shoes, violent straining, strenuous exercises when not strengthened for them, long continued and hard coughing, jars and jolts, too frequent pregnancy, etc.

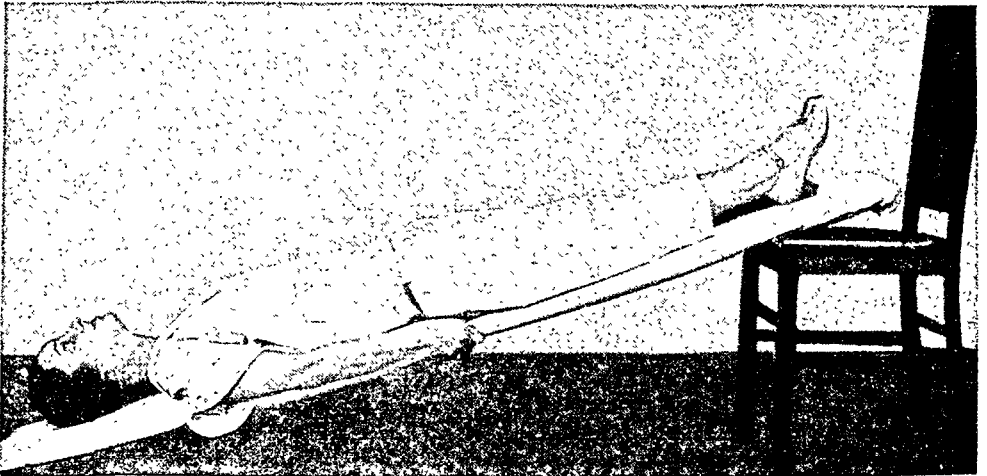
Fortunately, fashion has been of great benefit to women of late years by doing away with too heavy and cumbersome clothing, petticoats, etc. and by discarding heavy, tight corsets and stays, though it has counteracted much of this good by dictating the high heeled shoe. All clothing should hang from the shoulders so the waist and the abdomen may be left absolutely free from any kind of constriction. Low heeled shoes should be worn. Accompanying illustrations show exercises for correcting the various forms of uterine displacements.

Uterus,
Anteflexion

Anteflexion of the Uterus is a condition in which the organ is bent over or doubled over upon itself, in a forward direction, the fundus or top of the organ pressing upon and interfering with the bladder the same as in anteversion, though there may be little apparent change in the direction or the position of the mouth and neck of the uterus. It is said to be caused sometimes by a state of congestion of the fundus of the uterus, this part then being so much larger and heavier than usual that it bends over upon the cervix. This, however, is a doubtful cause in most instances; as a rule, other causes are far more potent. It is supposed to be congenital in many cases and due to imperfect development of the generative system; but lack of exercise and defective muscular development and perhaps a loaded sigmoid colon pressing upon the uterine fundus undoubtedly are responsible in a far greater number of cases.

Uterus,
Anteflexion,
Symptoms

Symptoms. Aside from its effect upon the bladder, anteflexion may be the cause of painful and difficult menstruation, in which the pain is intermittent and expulsive in character and the menstrual fluid dark and clotted. In some cases sterility also is caused mechanically by anteflexion, the obstruction in the interior of the uterus caused by the bending of the organ making conception impossible.



Showing an inclined surface upon which to take exercises of special value in correcting weaknesses of women. A large board, perhaps an ironing board (preferably padded and covered with cloth), may be placed with one end upon the floor and the other end securely resting upon a chair, the side of a bed or other support. A sleeping-cot may be used for this purpose by elevating the end. The position shown here is a valuable resting position for relieving pressure upon the pelvic organs, when inflamed and congested, and especially for correcting prolapsus of the uterus. Also advised in anteversion and anteflexion. This is a beneficial resting position to give relief during painful menstruation, when the uterus is congested, enlarged and heavier than at other times. It is also of great value and may be assumed frequently during pregnancy, if there is a pronounced sense of weight and bearing down.

Treatment of ante flexion and anteversion requires clothing properly worn and the strengthening of all of the abdominal organs and muscles. Lying on the back on an inclined surface with the head lower than the hips is exceedingly beneficial in both of these conditions. While in this position deep abdominal massage should be practiced. The exercises illustrated herewith should be faithfully and persistently practiced every day, but those executed face downward should be avoided or used at first in each exercise period. Daily cold sitz-baths will be of special advantage, while air-baths, outdoor life, walks, a wholesome diet and all other means of invigorating the body should be made a daily practice.

Uterus,
Forward
Displace-
ments of,
Treatment

Anteversion of the Uterus. When the uterus is tipped forward beyond the normally slight forward incline the condition is called anteversion. In this case the upper part rests or presses upon the bladder while the mouth and the neck of the uterus are tipped backward toward the rectum more than under normal conditions. This pressure often seriously interferes with the bladder, causing irritation and a frequent or even constant desire to urinate. In an occasional case there is inability to urinate without the aid of a catheter.

Uterus,
Anteversion

Hernia of the Uterus, or Hysterocele, is a rupture which contains the uterus or a part of that organ. It is a rare disorder and should be treated according to the instructions given on the cure of *Rupture* in this volume, avoiding the more strenuous exercises suggested or taking care not to strain any part of the body while taking them. The exercises for displacements of the uterus may be of value in uterine hernia, avoiding those taken face downward.

Inversion of the Uterus. This is a condition in which the uterus becomes inverted or turned inside out, not unlike a stocking or a mitten when it is drawn off. Naturally, the body of the organ descends into the vagina, though in a different way from that in ordinary prolapse. This condition, however, although a painful one, is comparatively rare. The causes are similar to those which produce prolapse, especially forcible extraction of the placenta. The treatment should be along the same lines as that for prolapse. Assistance is required, as a rule, in returning the uterus to its proper position. This is to be done while the patient reclines on her back with her hips raised higher than her head.

Uterus,
Inversion

Obliquity of the uterus is simply a moderate leaning of the organ forward, backward, or to one side. It is common. While not of itself serious, it should be corrected, if known to exist, by the exercises and methods referred to, because it may be the beginning of a still greater degree of displacement of a more serious character. In the correction of all these displacements it is important that high-heeled shoes be avoided and that proper posture be cultivated.

Uterus,
Prolapsus of

Prolapsus Uteri (Prolapse of the Uterus; Falling of the Womb).—As a result of the laxity and stretching of the ligaments, or of pressure and the lack of the normal support of the tissues beneath the uterus, this organ sags down into the vagina between the rectum behind and the bladder in front, tending by its pressure to interfere with these organs. Naturally, the ligaments are drawn down with the uterus, and still further stretched and loosened.

Married women are more prone to this condition than are single women, as can be readily understood. Sexual excesses are inclined to weaken the walls of the vagina and contribute to this condition; violent coitus may directly weaken the ligaments. Childbirth also is a large factor, when, for instance the perineum has been torn or when the placenta has been forcibly removed.

It is said that dancing, bicycle riding, horseback riding, excessive walking or prolonged standing will produce this condition, especially when indulged in during the menstrual period, when the uterus is naturally congested and enlarged and heavier. But this usually will apply only when such a weak condition of the general body is present as would be likely to produce the same complaint at any other time. As a matter of fact, there are no better preventives of prolapsus than walking and horseback riding, when properly adapted and carried out.

The degree of prolapse depends upon how far down into the vagina the uterus has sagged. It may be only a short distance; but even then it may produce as much distress in one woman as a much greater degree of prolapse would occasion in another.

Uterus,
Prolapse of,
Symptoms

Symptoms. The patient will experience a dragging sensation or sense of weight or bearing down, with pain in the small of the back and the lower part of the abdomen. These symptoms are aggravated by prolonged standing, by walking, or by other exertion while upright. They are weakening in themselves. The pressure of the uterus against the bladder and the rectum may cause considerable difficulty in urination and in defecation, often frequent urination from the resulting reduction of bladder capacity.

Uterus,
Complete
Prolapse

Complete Prolapse, or Procidentia, is that degree of prolapse in which the uterus actually protrudes from the vulva, naturally dragging down with it the walls of the vagina, the peritoneum, the ligaments and even occasionally pulling down the bladder, to which it is attached by the two anterior ligaments. Complete prolapse represents an extreme case of weakened tissues, the suffering is severe and the dragging sensation becomes unbearable. The prolapsed mouth of the uterus often becomes ulcerated from friction. Hemorrhage may result and not infrequently it is impossible to prevent the constant dribbling of urine.

Treatment. In the treatment of prolapsus one must consider the cause in each individual case, though measures for improving the general health and for building up strength in all the muscles, ligaments, organs, and tissues of the lower part of the body always are required. In every case proper wearing of proper clothing is necessary. A continent life is imperative until the vigor and the tone of all of the parts have been restored. Constipation must be overcome. In case of a badly torn perineum, as a result of childbirth, an operation will be necessary. In severe cases the sufferer may have to remain in bed or at least off her feet, though this course is inadvisable unless she cannot be about without aggravating the trouble.

Uterus,
Prolapsus of,
Treatment

If there is much prolapse, even in case of complete prolapse, the uterus often can be made to assume its normal position by having the patient lie upon an inclined plane, with the head twelve to twenty inches lower than the hips. Raising the foot end of the couch, bed or bed-springs eight or ten inches will help accomplish this, though a large ironing board, detached door, or other convenient surface will be better. Such a board or other convenience should be provided for the sake of the special exercises illustrated in the present discussion. It will be well to remain in this inclined position for half an hour at a time at least twice a day, having cold hip packs applied during this time. A daily cold sitz-bath also is advised. (See Vol. VI, Sec. 2.) A cool vaginal douche may be useful in some cases as a means of contracting the tissues and improving their tonicity.

Uterus,
Prolapsus of,
Gravity Ex-
ercises for

Artificial supports, such as pessaries, however, should never be relied upon for permanent improvement. They fail to accomplish any real results, they are likely to retard any natural improvement and they often cause irritation, pain, leucorrhea, ulceration and even may predispose to the formation of cancerous tissue. Exercise is the most important active agent in the cure of prolapse, so whatever else is done this should not be neglected. The special system of exercises on an inclined surface shown here should be practiced faithfully and persistently, together with general exercises for women to strengthen the entire body. (See *Physical Training for Women*, Vol. III, Sec. 2.) If the patient is weak these exercises should be begun at first with caution, then gradually increased in energy as one gains in strength. This is said not because one should fear these exercises, for they are not dangerous; but because it is possible for the enthusiast to carry them too far at first and because it always is preferable to take them up gradually. In all leg movements taken on the back it is advisable at first to bend the leg slightly at the knee before raising.

A fast is of great advantage in commencing a course of treat-

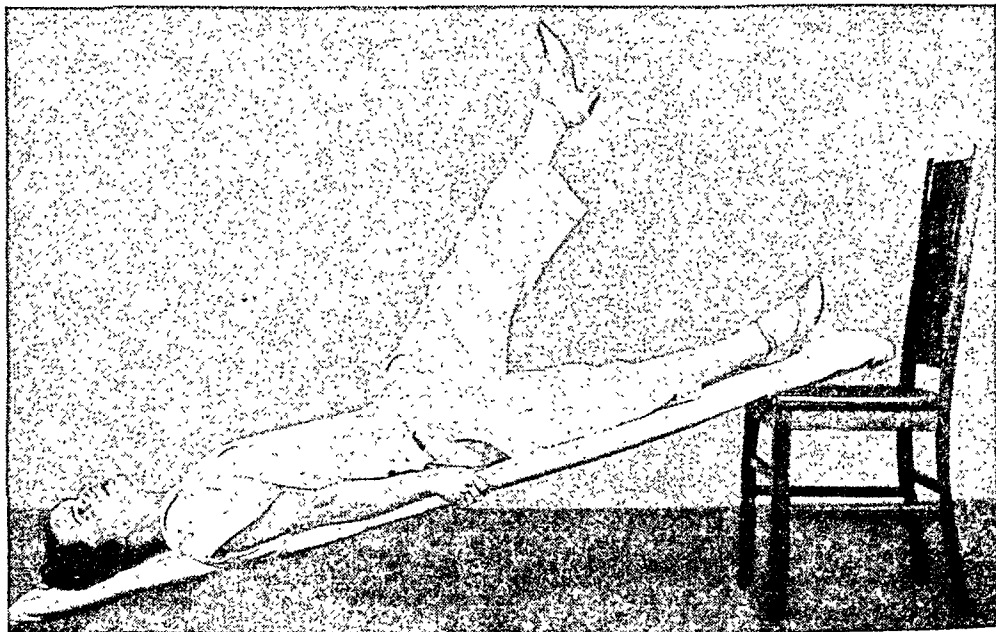
ment for prolapse. It favors contraction of the tissues and especially the building up of strength in the new tissues formed after the fast. A fast also overcomes any inflammatory conditions or unwholesome discharges which have tended to aggravate the trouble. In short, much more rapid progress may be made in cases where fasting has been taken up in the beginning than where it is omitted. (See Complete Fast No. 2, and appropriate fast-breaking routine, Vol. VII, Sec. 6.)

Uterus,
Retro-
flexion

Retroflexion of the Uterus occurs when the uterus is bent or doubled backward upon itself, the mouth retaining its usual position, or nearly that, while the body of the organ is bent backward and occupies a position between the vagina and the rectum. The causes are similar to those of retroversion. (See page 3790.) When so many cases of retroflexion are said to have followed childbirth, through the increased size of the uterus, irregular involution, relaxed ligaments and abdominal walls, indicates clearly the importance of strength and a generally fit condition in going through the crisis of motherhood.

Uterus,
Retro-
flexion,
Symptoms

Symptoms. In the case of either retroversion or retroflexion there is a constant dull, aching pain in the back, perhaps some headache, as well as a sense of fullness in the rectum and in the pelvis, which sensation seems to extend down the thighs, these symptoms usually being more pronounced before and during menstruation, which is likely to be profuse and often painful. There

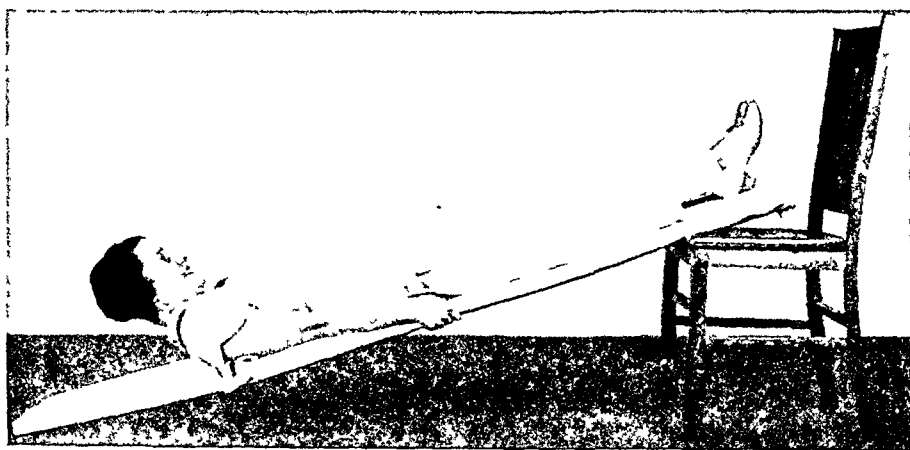


Lying face upward upon the board, as illustrated, and keeping the knee straight, raise one leg as high as possible, lower, and repeat until slightly tired. Then perform the movement with the other leg. This exercise is especially valuable in anteversion and antelexion of the uterus.

generally is some leucorrhœa. In some cases, however, women with severe retroflexions or even torn vaginal floors go through life with far less suffering than other women with even slight displacements.

Treatment. For the cure of both retroversion and retroflexion it is necessary to avoid tight binders, girdles, corsets and tight clothing, and just as necessary to build up the general health, especially to strengthen all of the muscles, ligaments and tissues of the abdominal region. A good remedial measure is to take a position on the knees and with the chest far down so the hips are considerably higher than the shoulders, thus permitting the uterus to return by its own weight to something like its normal position. This knee-chest position may be assumed and retained for a considerable length of time, two or three times daily, and in bed just before assuming a sleeping position. In addition to this, however, and of great importance, are some of the exercises on the inclined board here illustrated. Women suffering from retroversion and retroflexion should take only the movements executed face downward, at least for the first month or two of treatment. After that time, if making satisfactory progress, those exercises performed while lying on the back may be added, to be taken before the others. The exercises should be followed by a cold sitz-bath.

Uterus,
Retro-
flexion,
Treatment



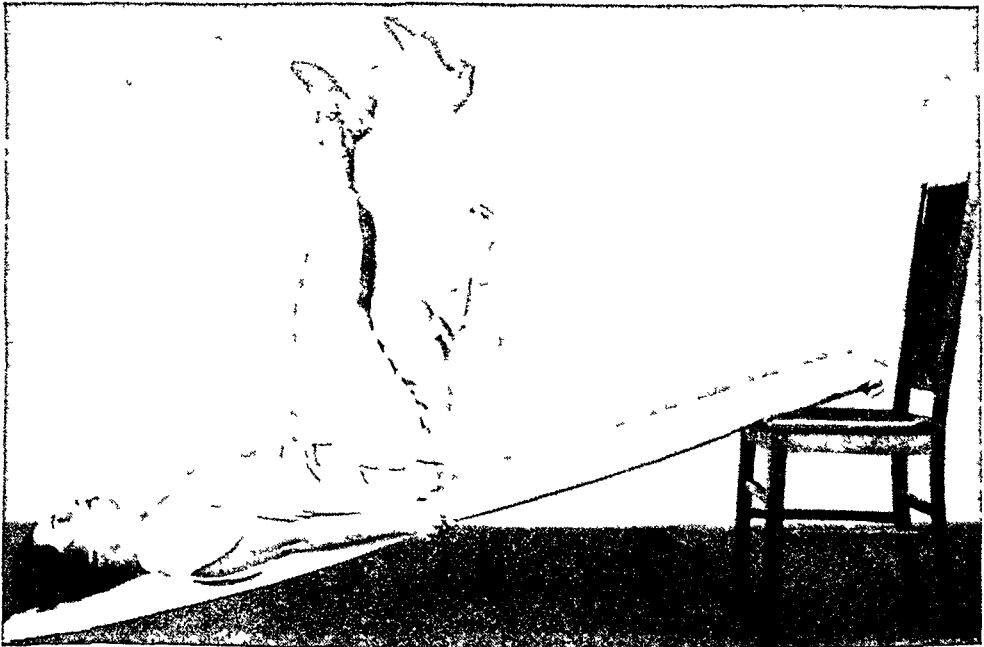
Lying on the back with the head at the lower end of the incline, and taking hold of the sides of the board with the hands if desired, raise the head and shoulders a few inches from the board, but not high enough to strain. Relax, and repeat until slightly tired. This is an ideal exercise for strengthening abdominal muscles and parts, and for overcoming certain abnormal pelvic conditions, especially anteversion and prolapsus of the uterus, or congestion and inflammation in the pelvic region. As one grows much stronger one may comfortably raise the head and shoulders a little higher, and finally, when sufficiently vigorous, may raise the upper body to a perpendicular, or sitting position. The exercise may later be varied by twisting the upper body somewhat first to one side and then to the other when raising the head and shoulders. It will be advantageous to hold the feet in place by the help of a strap or a rope.

A common treatment for these backward displacements is a surgical operation by means of which the fundus of the uterus is brought forward and sewed to the rectus abdominis muscles in front, in order to hold the uterus in its normal position. But this operation frequently turns out unsatisfactorily as a permanent cure, since the fault lies primarily in a weakened condition of the muscles, ligaments and tissues generally. Any form of treatment which does not consider strengthening these cannot be ideal.

Continence and the general treatment prescribed for prolapsus may be recommended, together with relief of any constipation. It is true that ordinary treatment for constipation may not be entirely satisfactory so long as the mechanical obstruction exists; but this is all the more reason why no other contributing factors should be allowed to cause constipation. Enemas may be of distinct advantage if taken in the knee-chest position. In case of constipation a fast may be of value at first, or until the treatment begins to show results.

Uterus,
Retrover-
sion

Retroversion of the Uterus is a tipping or falling over backward of the body of the organ, with the mouth turned forward—just the opposite of anteversion. By the pressure against the rectum



Grasping the board at both sides with the hands, and keeping the knees straight, one should lift the feet in the manner illustrated until the legs are perpendicular. If not strong, in the beginning one should lift one leg at a time, and also slightly bend the knee during the lifting. Repeat until only slightly tired. This exercise may be varied by spreading the legs apart when they are perpendicular and bringing them together again, repeating a number of times. These movements are valuable for building strength in the pelvic organs and abdominal muscles, and are especially beneficial in cases of anteversion, anteflexion and prolapsus of the uterus.

caused by this condition an obstinate form of constipation commonly is produced. Sometimes this displacement may come about suddenly, as from a fall, a strain, or violent coughing; but most of the cases develop gradually, though in either case the predisposing cause is weakness and laxity of the tissues.

VACCINATION (*Vaccinia*).—Vaccination is the inoculation of the human body with the virus of cowpox, a cattle disease which somewhat resembles smallpox in the human being. An animal suffering from cowpox develops vesicles and pustules of a character similar to those of smallpox upon certain portions of its body. It was concluded that there was some connection between the two diseases or that they were really the same disease. Edward Jenner, an English physician who lived from 1749 to 1823, noted the fact that persons who handled cattle suffering from cowpox, and who probably inoculated themselves with the contents of the pustules through cuts or scratches in their hands, etc., did not seem to contract smallpox, which was then a fairly common disease. Therefore, in 1796 he introduced the practice of inoculating human beings with the cowpox virus as a preventative of smallpox.

Vaccination

It was found that persons so vaccinated developed at the site of vaccination a vesicle, followed by a pustule which resembled almost exactly the pustule of that disease. Frequently a few other pustules developed near the original site and there also were slight constitutional symptoms, showing that the entire body was more or less affected.

Vaccination, Procedures

Later it became a common practice to vaccinate one person from the contents of a pustule of another person who either had been vaccinated or was suffering from cowpox. Then again later, quills dipped into a mixture made of the pustule contents were used. The arm was scarified with a lancet and the quill rubbed into the scarification. Still later small flattened portions of hard bony substance sharpened at the point were used so that the scarification and the inoculation could be accomplished in one operation.

At present, so called vaccine is the virus of cowpox prepared with glycerin, drawn into a small capillary glass tube and hermetically sealed. When used the ends of the tube are broken off, a slight scarification is made in the skin with a sterile needle, not deep enough to draw blood but just enough to cause a slight serous exudate to appear, and the contents of the tube are deposited upon this scarification by pressing a small rubber bulb which has been pushed over one end of the tube.

If the vaccination is successful, or "takes," a vesicle forms and develops into a pustule, which arrives at its height about

Vaccination, "Successful"

the ninth day after vaccination. At this period it is a round raised pustule slightly depressed in the center, with a slightly reddened area around it upon the skin. The pustule begins to dry up, with the formation of a scab which drops off about three weeks after vaccination, leaving a slightly reddened scar which gradually becomes silvery-white.

Vaccination has been the subject of much discussion throughout the decades of its use. It is credited with reducing the prevalence of smallpox, whereas improved sanitation and hygiene justly deserve most credit. To the normal person, few physical experiences can be more repugnant than such treatment. Many people, especially children, have been killed, many others hopelessly maimed, by vaccination. In our opinion, it belongs to past, unenlightened ages and eventually must be resigned to disuse and properly discredited.

The indisposition which almost always results from vaccination that "takes" is called *Vaccina* or *Vaccinia*.

Vaccina-
tion, Treat-
ment

Treatment. All measures for increasing the vital processes of the body will be advantageous. In some cases a short fast may be recommended, following this with either Milk Diet No. 1 or a return to ordinary foods, avoiding overeating. One should drink water freely, and overcome constipation with enemas. Exercise in the open air is recommended. Air-baths, friction baths, and sun-baths also are recommended. In cases which develop more serious symptoms treat as described under *Blood-Poisoning* (Vol. VII.)

In addition to vaccination against smallpox, various inoculations are recommended for the prevention and cure of many different disease conditions of the human body. These substances are variously prepared, some from blood serum and some from the toxins and germs of diseases prepared in special ways. The two principal substances are called antitoxins and vaccines.

Antitoxin,
Diphtheria

In the treatment of diphtheria, for instance, what is called *diphtheria antitoxin* is used. It is prepared from the blood serum of horses which have been inoculated with diphtheria bacilli over a considerable period of time, using stronger amounts each succeeding time until finally there is no constitutional reaction to the strongest dose of the toxin (bear in mind this fact!). The blood serum of horses so treated, when injected simultaneously with what otherwise would be a fatal dose of the diphtheria bacillus or toxin, will fail to kill another animal so inoculated.

Tetanus antitoxin is antitoxin prepared on similar lines. It is claimed to be efficient in the preventive and curative treatment of tetanus, or lockjaw.

Other inoculations are made with preparations of killed and

sterile bacteria of certain diseases. These injected substances are supposed to form in the human body certain *antibodies*, which have the property of nullifying the poisonous effects of the active germs of the disease.

Again, other inoculations are made from vegetable protein and other substances and used in the treatment of certain diseases, such as asthma and hay-fever.

Among the diseases which today are treated by inoculation besides smallpox, diphtheria, and tetanus, may be mentioned scarlet fever, rabies, whooping cough, typhoid fever, paratyphoid, hay-fever, asthma, dysentery, colitis, rheumatism, arthritis, etc.,—practically all such treatments being experiments. Numbers of physicians declared against the efficacy of many of these serums and vaccines. In our opinion, *not any of these preparations is necessary for the prevention or cure of disease or the saving of life.* If proper sanitation, hygiene and diet are taught and insisted upon and proper treatment instituted at the onset of disease these diseases will be wiped out gradually or rendered mild and innocuous—and without the increase in organic disease or the development of some new and strange disease.

VACCINIA.—See under *Vaccination*.

VAGINA, DISEASES OF.—*Leucorrhea* (commonly called “whites”), in reality, is a symptom and not strictly a disease. It is a whitish, greenish, or yellowish mucous, non-purulent, or purulent discharge of a catarrhal nature from the female genitals, and is an exceedingly common condition, due to any one of many causes. It often is found in a moderate degree in women otherwise free from it, just before and just after menstruation.

Vaginal
Diseases

Leucorrhea frequently produces irritation of the mucous membranes of the genital region and of the skin around the vulva. There also may be much itching of the parts. Women suffering from more or less pronounced *leucorrhea* generally are nervous and complain of dull and aching pain in the lower part of the back. There frequently is headache and almost always constipation. It often is the result of uncleanness, coupled with a burdened condition of the blood.

Leucorrhea

Treatment. *Leucorrhea* is a difficult condition to remedy permanently. It is similar to catarrh of the nasal and throat passages. In some instances months of treatment are required to bring about recovery; and where the vitality is low years may pass before this end is attained.

By way of improving the circulation and invigorating the weakened glands and tissues the use of cold hip packs on retiring may be suggested, the “T” bandage being excellent. (See under *Compresses*, in Vol. VI, Sec. 2.) Each morning a hot and cold

sitz-bath should be used, the patient remaining in the former for four or eight minutes and in the latter for one or two minutes, the two preferably repeated. If the catarrhal condition of the vagina is extreme, daily warm salt water douches may be recommended, until the discharge has lessened. Douches should be taken in the lying down position when possible.

Leucorrhœa.
Diet in

The main factor in the treatment is a series of constitutional measures for accomplishing purification of the blood. In a chronic case it may not be necessary to undergo a fast, but this surely will hasten a cure. In acute cases a fast of several days is to be recommended. Complete Fast No. 3 may be used, its duration to depend upon the strength and vitality of the patient. Fast-Breaking Routine No. 1 or 2 may then be followed, and Milk Diet No. 1 thereafter, for building vitality and improving the condition of the blood stream. In some instances a limited diet or an uncooked diet will be satisfactory, and in all cases the patient should take care to eat no more than is necessary to maintain strength. See Limited Diets Nos. 1 to 8, Fruit and Nut Diet No. 80, Cereal Diets Nos. 1 to 5 and Salad Diets Nos. 6 and 1 to 4, choosing therefrom according to the appetite, but adhering closely to one routine for at least a day at a time.

It also is important to insure activity of the alimentary canal and to overcome the slightest tendency to constipation. (See treatment for *Constipation*.) Free drinking of water during the fast and thereafter when not on a milk diet is necessary.

A general vitality-building routine suited to the strength of the individual should be faithfully followed day by day. Outdoor air, air-baths, dry friction baths, sun-baths, etc., are essential. Long walks, games and systematic exercises aid recovery.

Special Manual Treatments Nos. 11 to 16 are advised if the patient is fairly vigorous, otherwise Nos. 1 to 10 are recommended. The latter will be even more effective if hot spinal packs are used in connection with them. Self-Applied Exercise Movements Nos. 1 to 6 or 7 to 15 may be used instead of the above if an operator is not available.

Vaginal
Fistula

Vaginal Fistula is an abnormal passage extending between the vagina and the bladder (vesico-vaginal fistula), or between the vagina and the rectum (recto-vaginal fistula). It generally is caused by an injury received in the course of a protracted labor in which pressure from the infant's head has persisted for so long that ulceration and sloughing have been induced. The urine often cannot be retained, giving rise to constant dribbling.

This condition calls for a general constitutional treatment preceded by a fast, as in the case of vaginitis. Douches at 110 degrees F. will be of value, the water having been boiled. Operative

measures, if successful, usually will bring about quick recoveries; but even then a constitutional treatment will hasten the process. Also an extended fast will be of value.

Vaginal Prolapsus and *Vaginal Tumors* result in symptoms similar to those found in the same conditions in the uterus, and the treatment applicable to similar disorders of the uterus is in order. (See *Uterus, Displacements of*.)

Vaginal Prolapsus should be treated by gravity exercises and constitutional measures. As this condition often is accompanied by a prolapsed condition of the uterus, attention should be given to the latter difficulty.

Vaginal Tumors, like tumors of the uterus, require general constitutional treatment, including fasting and other eliminative measures; in fact, they should be treated as tumors in any other part of the body. (See *Tumors*.)

Acute Simple Non-specific Vaginitis is a purulent inflammation of the mucous membranes of the vagina, not gonorrheal. The symptoms are heat and burning, pain on moving about, a feeling of weight in the pelvis, itching and rawness of parts around the vulva, frequent desire to urinate, with pain and scalding, headache, constipation and restlessness and a muco-purulent discharge.

Vaginitis requires practically the same *treatment* as leucorrhea, except that such treatment must be even more radical when dealing with the former trouble. Whenever possible a long fast should be maintained, as in Complete Fast No. 2. Such a fast, however, will prove too drastic for some women. Where the vitality and weight are low, a fast of four to seven days is to be recommended, followed by Milk Diet No. 1, which may be continued until normal weight has been regained or until the symptoms of the disease have disappeared. A greatly reduced vitality requires a thorough rebuilding of the body to effect a cure. Alternating Fast No. 5 will then prove to be satisfactory.

Vaginitis

Gonorrheal Vaginitis is discussed elsewhere. When severe pain is felt, a hot sitz-bath will secure quick relief. This should be followed immediately by a cold sitz or cold hip pack. A hot and cold sitz-bath should be taken morning and evening. When vaginitis is the result of gonorrheal infection or when it is non-specific, it may hasten recovery to use warm, mild, antiseptic washes. A hot salt-water douche may answer in many cases, but a weak solution of permanganate of potash will be more effective. The washes may be used two or three times daily, lukewarm. Remember, however, that these washes afford only temporary benefit and that a purification of the blood is the only thing that will insure a permanent recovery.

Vaginitis,
Gonorrheal

VARICELLA.—See *Chicken-Pox*.

Varicocele

VARICOCELE.—Swelling of the veins of the spermatic cord, the portion of the anatomy which holds the testicles in suspension. This dilatation of the cord may be slight, or so prominent that the scrotum likewise becomes swollen. Varicocele, which usually appears in early manhood, is due to disturbances of the local circulation. Generally a tendency to anemia accompanies this condition and impairment of the general health is partly the cause of the disturbance.

Many cases of fulness and twisting of the spermatic veins are not really cases of varicocele, for the veins are normal in every respect and are properly performing their function. But it is a common thing for charlatans and quacks to emphasize the dangers of even the slightest degree of varicocele. They thus produce fright in the minds of those who consult them. As a matter of fact, varicocele offers a profitable field for the quack, who often will contend that almost every possible sexual ailment, with the exception perhaps of venereal disease, can result from this condition of the spermatic veins.

Varicocele,
Symptoms

Symptoms. The spermatic cord, a sheath-like structure, holds up the testicle on each side and contains the duct of this gland together with the vas deferens and the spermatic artery and veins. Because of poor circulation, congestion of blood in the parts, laxity of the tissues and other conditions these spermatic veins may enlarge. Often they feel like a bunch of earthworms to the touch; frequently they cause enlargement of the scrotum itself; and in severe cases they may cause even distressing symptoms, or lead to serious results. Often, however, there are no symptoms except the swelling. If the scrotum is lax and hangs low there may be a feeling of weight and dragging, or there may be a dull aching pain, sometimes severe. There may be tenderness of the veins or of the cord. In many cases the tortuous outlines of the veins can be plainly seen.

Varicocele is generally found on the left side for the following reasons: First, the left spermatic cord is longer than the right one. Second, the left spermatic vein opens at right angles into the left renal vein, which does not favor a ready return of blood on that side. Third, the left spermatic vein runs behind the sigmoid flexure of the lower bowel, with the result that the latter may press upon and obstruct the vein, if the flexure is distended by accumulations of feces. Therefore a person who is habitually constipated is somewhat more likely to develop varicocele than one who has regular bowel movements.

It has been claimed that there often is a hereditary predisposition to varicocele, as the complaint seems to run in families. By this is meant that the structural peculiarities of the veins,

their valves and their walls are hereditary. Weak or imperfect veins would be conducive to this complaint, just as they are conducive to varicosities in other portions of the body. In any case, with a general weakening and enlargement of the veins their valves also will be affected, sometimes being entirely obliterated. As a rule the walls of the veins become thinned out, though in some cases there may be a thickening and hardening of these walls.

As to the *causes* of varicocele, prolonged standing has been supposed to be a large factor; but it cannot be called the active cause, inasmuch as usually it will not produce the condition in one who is vigorous and who has a good circulation. As a matter of fact, the real cause generally is in a debilitated state of health, with lack of tone, or in too frequently repeated sexual acts which cause a constant congestion of the parts.

Varicocele,
Causes

Masturbation, by causing frequent engorgement of the veins and a state of general debility, may be a factor also in the development of this disease. Many persons believe that varicocele always is the result of sexual excesses; but this is not so, as many men who have been discrete in this respect but who are not well set up or vigorous are subject to this condition. Pressure upon the veins by a tumor, hernia or a truss may be a cause of varicocele. Constipation, injury to the cord and strains from lifting heavy articles also may cause the condition.

In many cases worry about the condition will prove a more serious matter than the disease itself. Ordinary cases can be benefited easily and worry is unnecessary. In severe cases, however, the degeneration of the veins may become serious and, as a result of the congestion from failure of the return circulation, the testicle may become softened, more or less atrophied and impaired in its function.

Treatment. Inasmuch as this disorder is the result of poor circulation and general lack of vigor, it follows that the treatment must be one to strengthen the parts affected along with the rest of the body and to promote the activity, circulation, development and tone of all of the tissues concerned. Aside from the matter of exercise, without doubt the use of cold water is an important factor in the treatment of this complaint. Cold water may be used freely and with any frequency desired, though especially to be suggested is the use of a cold sitz-bath each morning following the exercise, and bathing the affected parts with cold water once or twice thereafter during the day. If possible, a cold sitz-bath morning and evening would be satisfactory, and the colder the water the more effective the treatment, provided one is able to endure it and secure satisfactory reaction. If at any time there

Varicocele,
Treatment

should be extreme pain, a hot sitz-bath may be of advantage; but it always should be followed by a cold sitz-bath or local bath with cold water.

Special Manual Treatments Nos. 11 to 16, together with a hot spinal pack are recommended if assistance is employed in the administration of the treatment. However, inasmuch as the patient probably will apply his own treatment without requiring the services of anyone else, Self-Applied Movements Nos. 1 to 6 are recommended instead. These may be varied by Self-Applied Movements Nos. 7 to 15, but always following the use of hot spinal packs. Self-Applied Shoulder, Waist and Back Manipulations Nos. 9, 10, 15 to 18; also Hip and Spinal Manipulations Nos. 27 to 32 may be taken in the morning, along with any other general exercise desired. Slanting table exercises, as for hernia, will aid in this condition. Deep breathing exercises and abdominal retraction also are to be advised.

Varicocele,
Special
Exercise for

The following exercise is often valuable: Lie flat on the back, bring the knees up to the chest with the scrotum in between the thighs. Now interlace the fingers of both hands just below the knees in front of the calves and then pull vigorously. Relax and repeat until tired. Each pull should press and massage the scrotum slightly.

Varicocele,
Suspensory
for

The wearing of a support having elastic straps is to be recommended, especially where there is extreme tenderness and pain or a dragging sensation. A condition of this kind, however, often will yield to the treatment recommended and the use of a support can be gradually relinquished.

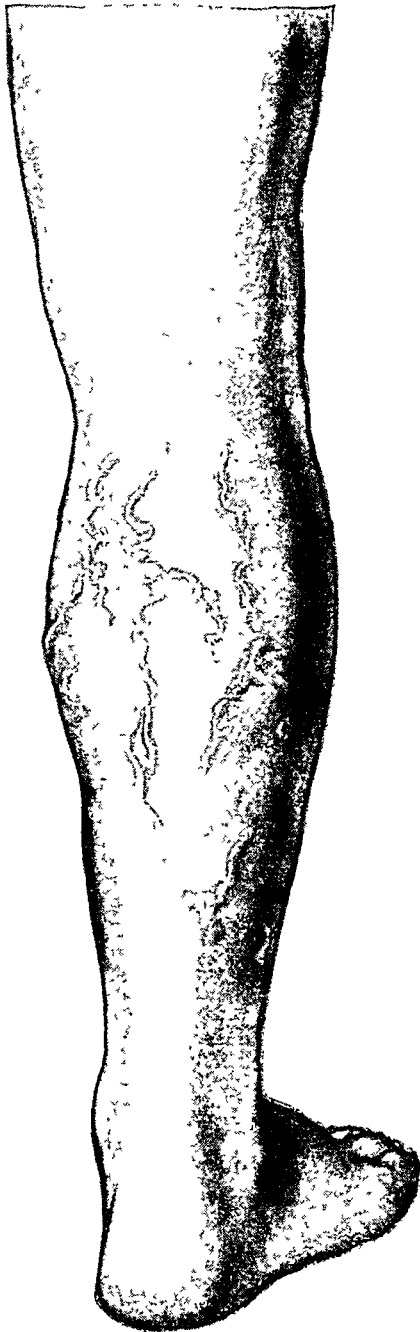
In combination with the water treatment and the special exercises mentioned, the patient should adopt a general vitality-building routine for developing the highest possible degree of health, purifying and enriching the blood, and promoting the circulation. Daily long walks, until fatigued, together with games suited to the strength of the individual, are specially to be recommended; but one should walk fairly rapidly, since much standing and slow walking tend to aggravate the condition by permitting gravity to have greater influence. Indeed, the more robust and muscularly vigorous one is the better will be the circulation and the quicker will he be able to recover.

In some cases of long standing the patient may be discouraged with the slow progress, in spite of the fact that he no longer finds any inconvenience from the complaint. It may seem to him that the enlarged veins have not been reduced satisfactorily. He need feel no concern on this account, however, if the condition of the parts is vigorous and satisfactory in every other way. Sometimes, in long standing or severe cases, it is impossible to reduce the

veins to their normal size; but in that event the walls will be so strengthened and toughened that they will perform their functions perfectly and with no distress to the patient.

VARICOSE VEINS. — Dilatation and swelling of veins due to chronic congestion. When this dilatation appears within the scrotum or within the rectum, varicocele and hemorrhoids, respectively (which see), are the terms employed. By varicose veins usually is meant a swollen condition of the veins of one or both legs or thighs or both. Though the cause of their appearance usually is attributed to the strain of standing for long periods, it almost invariably will be found that chronic and obstinate constipation precedes their formation, such constipation often having existed for a long time. It usually is in this way that the blood becomes sufficiently burdened as to cause, together with the influence of gravity, dilatation of the veins.

The first sign of a varicose condition is seen when the veins stand out in thick blue, tortuous strands. These strands expand until pouch-like areas form, within which the blood may coagulate in hard and knotty lumps. With an increase in the area of dilatation skin eruptions, followed by ulcers, sometimes develop; or the extravasations of blood may produce a dropsical condition. But the usual consequence of the ailment is the rupture of the distended veins, followed by hemorrhage which may be severe. Chronic and painful ulcers often follow.



Varicose
Veins

Varicose veins are most commonly seen just beneath the skin of the calves and thighs, though often on other parts of the body. They are conspicuous tortuous strands which expand into pouch-like areas filled with stagnant blood.

Varicose veins frequently are caused by obstruction of the venous circulation during the latter months of pregnancy. As a rule they disappear after the termination of the pregnancy, though occasionally they persist for some time or permanently.

Varicose
Veins,
Treatment

Treatment. Treatment of this affection should consist of local measures for strengthening and invigorating the affected tissues. General constitutional measures are especially important for improving the circulation, relieving congestion and removing from the body the waste which in part has been responsible for the difficulty, through a tendency to clog and impede the circulation of the veins. By way of treating the tissues directly, cold water or cold water packs may be applied at any time of the day, though the plan of giving cold applications two or three times each day will be best. Cold mud packs are particularly to be recommended, preferably to be applied at night and allowed to remain until morning. Sun-baths are also helpful.

The constitutional treatment is really more important than the local measures mentioned, inasmuch as the disease depends primarily upon stagnant circulation. Active exercise to improve the circulation will be of great benefit, the venous circulation being dependent in some measure upon muscular activity.

Varicose
Veins, Ex-
ercise for

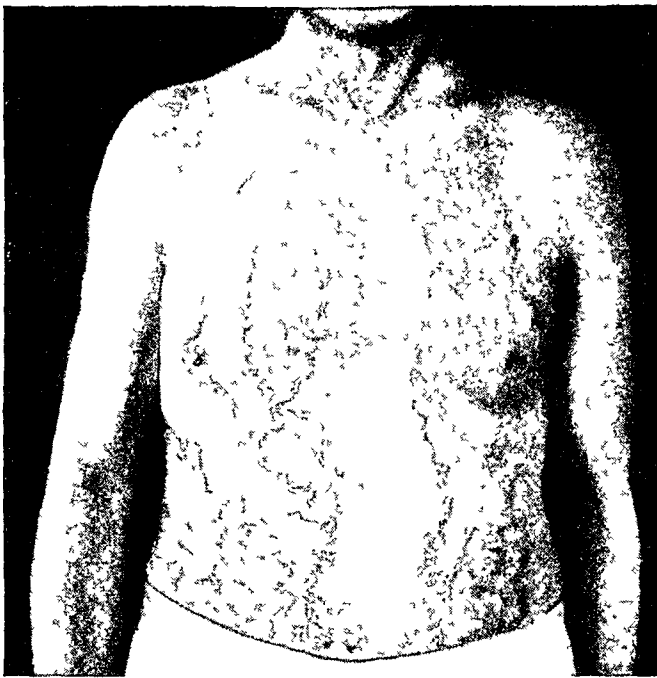
Walking is especially suggested, though one must emphasize the importance of walking vigorously. While standing for long periods may not be the chief cause of this disorder, as will be seen from the above description, yet once the condition has been established long standing will involve a strain upon these tissues and may tend towards stagnating the venous blood in the lower limbs. Long standing, therefore, is not desirable.

Slow walking is like standing still, in so far as circulation in the lower limbs is concerned. Fast walking, however, brings about an energetic use of the muscles of the legs, involving vigorous contraction and relaxation. This alternate relaxation and contraction of the muscles in vigorous walking is antagonistic to stagnation of the blood in the veins. One may be on his feet as much as he chooses so long as he is active and circulation is kept up. The slanting table position and slanting table exercises are of considerable benefit.

Modifications of diet may be necessary where the patient has poor assimilation and is reduced in vitality. In that event a general dietetic routine advised under the head of Vital Depletion is recommended. In some cases a limited diet will be beneficial, especially if one is overweight, this condition frequently being a leading cause of varicose veins. The patient should strive to build up his general vitality and strength. Inasmuch as constipation is one of the most common causes, one should give first

attention to the condition of the alimentary canal. Any tendency of this kind should be overcome with enemas and suitable diet. (See *Constipation* for detailed treatment.)

When due to pregnancy, varicose veins usually disappear after parturition. Even during the pregnancy, however, varicosities often can be overcome if the patient will take sufficient active



Enlarged and tortuous (varicose) veins on abdomen and chest. These are caused by conditions which interfere internally with the normal venous circulation, especially cirrhosis of the liver, mediastinal tumor, mitral regurgitation, and obstruction of the portal circulation.

exercise to insure a normal condition of health of all the tissues, to assist in increasing circulation, to correct constipation and to use a sufficiently low diet to permit only a normal gain in weight.

Surgical measures are frequently used in this trouble, but they usually are not necessary, inasmuch as the disturbance is not severe and satisfactory results often can be secured by natural measures. It is true that in some instances, where the tissues have been greatly stretched, it will be impossible for them completely to return to their former condition. However, with improved nutrition and better circulation, together with the use of cold applications, such as recommended for hardening and invigorating the tissues concerned, the walls of the veins will be so strengthened and toughened they will perform their functions satisfactorily and without further strain or inconvenience.

Since the late war surgery has given way, for the most part, to the injection treatment for this complaint. During the war it was found that veins into which injections were made for other purposes became so shrunk as to be practically obliterated. Now a comparatively harmless preparation is used specifically to shrink the veins, with excellent results in the majority of cases.

Varicose
Veins,
Surgical
Treatment

Varicose
Veins,
Elastic Sup-
ports for

Physicians often recommend the wearing of elastic bandages to give support to the veins. These may be knit to fit the part and contain rubber, or a special elastic cloth containing no rubber. While they may relieve the strain and pain incidental to the complaint, they sometimes so weaken the tissues as to render the condition far more difficult to cure. Therefore, such bandages usually should be avoided; or, if previously used, they may be discarded for at least part of the time each day, when one is off the feet, until the veins have been so strengthened by the treatments suggested here that the devices perhaps may be laid aside forever.

VARIOLA.—Another name for *Smallpox*.

Veins, In-
flammation
of—Phlebi-
tis

VEINS, INFLAMMATION OF (*Phlebitis*).—Usually this is a result of inflammation in some neighboring structure, the most common instance being that of the thigh (femoral) veins caused by an inflammation of the uterus following a difficult, neglected or septic childbirth. However, inflammation in any part of the body may affect the veins in that part. Gout may give rise to phlebitis. In some cases the inflammation is due merely to general toxemia; but there will be some exciting cause, such as injury or unusual exposure to cold and wet. Toxemia may be assumed to be present in all cases, not only because of the way most people live but because without it an inflammation is unlikely to occur.

Veins, In-
flammation
of,
Symptoms

Symptoms. The symptoms of inflammation of the veins are swelling and hardness of the veins, with much pain and throbbing. This inflammation may lead to coagulation of blood in the affected vein or veins, followed sometimes by rupture. Or pus may form in the surrounding area of inflammation and may infect the stagnant blood, which when ultimately carried away in the circulation may cause inflammation and suppuration in other veins or general pyemia. Inflammation of the veins often precedes the formation of a blood-clot or thrombus. (See *Embolism*.)

Veins, In-
flammation
of, Treat-
ment

Treatment. In a case of phlebitis it is well for the patient to rest and to keep the affected parts elevated, in order to assist the circulation while at the same time avoiding any strain upon the inflamed walls of the veins. A plentiful supply of fresh air should be provided and the patient should practice deep breathing, as this also assists the circulation.

Fasting is necessary or highly advisable in order to give the body every opportunity to correct whatever is wrong. Complete Fast No. 2 may be followed for the first day, after which No. 3 should be employed. There may be sufficient local edema to contraindicate the consumption of much water; if not, one may take considerable quantities daily. The water dilutes the poisons in the blood, improves the circulation and also the elimination.

The water may be taken hot or cold as desired. The full warm enema should be given daily in order to make sure of adequate elimination through the bowels, since complete elimination is important in securing improvement.

A cold wet pack should be applied to the affected parts twice a day, two hours at a time. The pack should be well covered with flannel so as to produce prompt and complete reaction. A pack may be applied at night before the patient goes to sleep, to remain until morning. If the symptoms are unusually severe, a general cold wet-sheet pack may be given every other day in place of one of the local packs. Massage of the affected part during active inflammation should be avoided.

When the symptoms have subsided, the fast may be broken with the fast-breaking routine indicated by its length and followed by Milk Diet No. 1. The milk is the best diet to employ in these cases because it produces plenty of pure blood and an active circulation, as well as active elimination. An enema should be taken daily while on this diet, and one local cold wet pack may be applied each day.

After a few days the patient should adopt a vitality-building routine suited to his strength and should adhere to it strictly, getting air-, dry friction and tonic baths and living an outdoor life as much as possible. Exercise should be resumed gradually, however. Moderate sunburning of the affected areas, with complete rest of the part, is also of great value; so also is vigorous scrubbing with a stiff brush. See *Embolism* (Vol. VII), also treatment for *Milk-Leg* in this volume.

VENEREAL DISEASES.—The term venereal means due to or propagated by sexual intercourse. Because of the possibility of complication in venereal diseases see also *Bubo*; *Chancroid*; *Gleet*; *Gonorrhea*; *Stricture of the Urethra*; *Gland, Inflammation of*; *Syphilis*; *Varicocele*; *Fallopian Tubes, Diseases of*; *Ovaries, Diseases of*; *Prostate Gland, Diseases of*; and *Uterus, Diseases of*.

Venereal
Diseases

VERMIFORM APPENDIX, INFLAMMATION OF.—See *Appendicitis*.

VERRUCA.—See *Warts*.

VERTEBRAL COLUMN, DISEASES OF.—The vertebral column includes the vertebræ and their joints and ligaments. The diseases of these parts include abscess and inflammation of the bone (osteitis), and of the joint (arthritis), curvature of the spine and tuberculosis of the spine. For the full discussion see under *Abscess*; *Bone, Diseases of*; *Spine, Curvature of*; *Joints, Diseases of*; and *Pott's Disease*.

Vertebral
Column,
Diseases

For the treatment of diseases of the spinal cord rather than the vertebral column, see *Spinal Cord, Diseases of*; *Infantile Paralysis*; and *Meningitis*.

Vertigo

VERTIGO (*Dizziness, Giddiness*).—This is a symptom which often is associated with various abnormal conditions; but it may be called a disease in itself. There is a swooning sensation and outside objects seem to be moving about in various directions. The patient often staggers and may fall. The condition may be due to some interference with circulation in the brain or to some disturbance of the nervous equilibrium. Probably the most frequent causes of vertigo are disturbance of stomach or liver function and constipation.

Other causes include diseases of the middle ear, especially Ménière's disease, imperfect eyesight or eyestrain, anemia, heart and kidney disease, hardening of the arteries, organic brain disease, the beginning of febrile diseases and all sorts of functional nervous disorders, especially hysteria, epilepsy and nervous headaches; also looking down from a considerable height and watching objects go rapidly by, as when in a train or an automobile. Vertigo varies considerably in duration and intensity, from mere transitory dizziness to the extreme prostration associated with Ménière's disease. The fundamental causes in all cases are wrong habits of living, especially intemperance of all sorts, such as overeating, the use of tea, coffee, tobacco and alcohol, sexual excess, overwork, etc.

Vertigo,
Symptoms

Symptoms. The chief symptom noticed in vertigo is sudden dizziness, with the loss of the sense of balance, with obscurity of the location of external objects, the latter seeming to be spinning around in a rotary or circular manner. The patient may fall, especially in Ménière's disease. Nausea often occurs, vomiting occasionally. As a rule it is a transitory condition, though it may frequently recur.

Vertigo,
Treatment

Treatment. The treatment of vertigo should always be directed chiefly toward the causative condition. See under the various headings mentioned. For immediate relief the patient should be placed in a recumbent position. The clothing should be removed and a plentiful supply of fresh air assured. If there is a definite cerebral anemia, hot compresses may be placed about the neck and over the head. If there is arteriosclerosis or a congestive headache the head and shoulders should be elevated. If the dizziness seems to be of nervous origin, spinal massage or manipulations, especially of the cervical and the thoracic regions, usually will be very helpful. Use any of the Head, Neck and Shoulder Movements described and illustrated in Volume VI. It is well to administer an enema in all cases. Avoid the administration of tea, coffee or other stimulants.

Viscer-
optosis

VISCEROPTOSIS (*Visceroptosia, Splachnoptosis*).—This is a ptosis or dropping from normal position of the viscera or organs

of the abdomen. Only one organ may be prolapsed, in which case the condition usually is termed according to that organ: as *gastroptosis* (stomach), *enteroptosis* (intestines), *coloptosis* (colon), *nephroptosis* (kidney), etc.; or there may be a multiple ptosis. The cause may be thinness or obesity, rapid emaciation from obesity or normal weight, overeating, strains, jars, injuries, prolonged standing while in a weakened condition, childbirth, frequent or numerous pregnancies, tight lacing or tight girdles, heavy skirts secured about the waist, surgical removal of the uterus and numerous other conditions.

Symptoms. There may be no symptoms, or there may be mild or severe ones. The subjective symptoms often are fulness and distress after meals, nervous dyspepsia, loss of appetite or voracious appetite, splashing sound in the abdomen, gaseous eructations, pains in the back, sometimes headache, vertigo, insomnia, loss of weight and constipation. Not infrequently there is more or less pronounced neurasthenia.

Viscer-
optosis,
Symptoms

Treatment. If the weight is not too greatly reduced a fast will help restore tone to the organs and their supports. A fruit fast or a cereal broth or vegetable broth diet may be used instead of a complete fast, though when possible the fast should be complete for several days. The later diet should gradually increase and consist of really nourishing foods, not merely space fillers. Fruit Diet No. 5 or 6, or a Lacto-Vegetarian or Raw Food Diets may be followed with good results. Milk Diet No. 1 is excellent if one can spend considerable or all the time reclining. Effort should be made to bring the weight to normal. Constipation must be avoided. Bran or agar or mineral oil should be used if regular diet does not take care of this.

Viscer-
optosis,
Treatment

Gravity is of great aid in correcting this condition. One should rest frequently during the day with the head considerably lower than the feet; and once a day at first, later twice a day, one should exercise in this reclining position. The movements advised for uterine displacements and hernia will be of greatest value, though considerable care will be necessary at first to avoid straining the weakened abdominal muscles and the internal ligaments. It is better that one sleep with the foot of the bed or the mattress raised several inches, that gravity may work during the sleeping hours. The knee-chest position and walking around the room on the hands and feet may be used frequently during the day with good results. Frequently, also, one should retract the abdomen, drawing the diaphragm as far up under the ribs as possible. This position may be held for several minutes to advantage, and need not interfere with breathing.

Viscer-
optosis,
Gravity
Exercises for

If one has an assistant he may use resisting exercises with good

results: the patient reclining and resisting arm and leg movements performed by the assistant. If weak, the assistant may make passive movements at first. Massage of the abdomen, during which fair force is applied in an upward direction on the abdomen, will aid recovery.

Tonic baths are of great value, cold to the abdomen also being of special value. Colonic irrigations often are of great service, since there usually is a pronounced retention of fecal waste in the bowel. The sinusoidal current ("Morse wave") is one of the most valuable of all measures in this condition. The surging sinusoidal should be used, with one electrode to the middle of the back and one (or two suitably united) to the abdomen. The current and duration of treatments should be regulated according to the tone and strength of the abdominal structures.

In very severe cases a special belt or corset may be considered for a time, but should be dispensed with as soon as the other measures have brought a favorable change.

Vital
Depletion

VITAL DEPLETION (*Adynamia*).—This is a condition popularly known as general debility. The patient is said to be "run down." The condition usually is associated with various other forms of disease; but it may be described as a state of general physical exhaustion or lack of energy as a result of mental or physical overwork, or of any of the various errors of life or unwholesome habits. In many cases there are emaciation, lack of nervous vigor and of general functional tone. The muscles usually are undeveloped; the victim has a "tired feeling"; fails to be refreshed by sleep; shrinks from exertion of any kind; is more sleepy or exhausted on rising than on retiring and in many cases suffers more or less mental depression.

Vital De-
pletion,
Treatment

Treatment. Vital depletion is really a condition of diminished nervous energy or nerve power. As all human energy is centered in the nervous system, every effort should be made to build up nervous vigor. A general constitutional routine should be adopted, including such modifications of diet as may be necessary to bring about a condition of perfect nutrition. Detailed suggestions along this line are given in the vitality-building routines in Vol. VII, Sec. 6. See also *Neurasthenia*, a condition practically identical in nature except that one may be vitally depleted without having the tendency mentally to aggravate symptoms so common in neurasthenia.

Vocal Cords,
Paralysis

VOCAL CORDS, PARALYSIS OF.—The vocal cords may become paralyzed through diseases of the throat and the larynx. The pathological changes which then take place in the nerves and muscles of the throat may lead to painless hoarseness or to complete loss of the voice. This condition is to be remedied only by attending to the cause of the nerve degeneration. One form

of paralysis of the vocal cords occurs in a left-sided pleurisy when the inflammatory products press upon the left recurrent laryngeal nerve, producing its paralysis.

Treatment. In all cases where paralysis of the vocal cords is due to some other disease of the throat or larynx, or of a more general nature, attention should be given first to the primary disease. In a general way, however, treatment should be much the same as that described elsewhere for ordinary cases of paralysis. The treatment must be constitutional and designed to stimulate circulation and improve nutrition and so to build up the entire nervous system. Spinal applications are of great value through invigorating the nervous system and strengthening and stimulating the spinal nerves, which have to do with the vocal cords and muscles involved. Head and Neck Movements Nos. 1 to 11 in all cases, or at least Special Manual Treatments Nos. 1 to 10 in connection with a hot spinal pack will be satisfactory.

Vocal Cord
Paralysis,
Treatment

Following this and a hot pack to the entire spine, alternate hot and cold packs to the back of the neck and to the region between the shoulders and the back of the neck are recommended. The special exercise treatments mentioned should be given each morning, but alternate hot and cold packs to the cervical spine may be repeated in the evening before retiring. The cold neck packs may be used then to advantage, these being allowed to remain all night or until dry. Some general suggestions in regard to fasting and other dietetic routines used in ordinary cases of paralysis should be followed, coupled with all possible measures for improving the health and building up the vitality of the patient. (See *Paralysis*.)

VOLVULUS.—See under *Intestinal Obstruction; Intestines, Diseases of*.

VOMITING.—The ejection of matter through the esophagus and the mouth from the stomach. It is a symptom, not a disease, which may be due merely to eating too heartily, too fast, or to wrong combinations of foods; but it also may result from more deep-seated causes. Among these latter are included all stomach disorders, especially dyspepsia and cancer, liver disorders, inflammation of the gall-bladder, gallstones, constipation, intestinal obstruction, various nervous disorders, especially hysteria and organic brain disease, pregnancy, and also the acute eliminative crises (fevers). Extreme vertigo, fear or pain also may produce vomiting; and this symptom will almost certainly be present if some poison is accidentally taken into the stomach. Vomiting may assume various distinguishing features which help to determine its cause. See section on the *Manifestations of Diseases*, under *Interpreting Disease Symptoms* (Vol. VII, Sec. 2).

Vomiting

Vomiting,
Symptoms

Symptoms. This is a symptom of some other condition. One usually is sick at the stomach, or nauseated and perhaps has one or more periods of retching before vomiting begins. The contents of the stomach are expelled. This may occur in various ways. There may be severe straining or retching before the stomach is emptied and the stomach contents may be ejected with much effort and considerable pain and in small quantities at a time; or there may be little effort and no pain. On the other hand, the vomiting may be projectile in character, the contents of the stomach being ejected with great force and in considerable quantities, with or without nausea, but usually without. This projectile vomiting usually is due to brain tumor or other serious affection or irritation of the brain, acute or chronic.

Vomiting,
Treatment

Treatment. Whenever vomiting occurs, regardless of its cause, it indicates the need for withholding all food and the emptying of both stomach and bowels. This may be accomplished by Complete Fast No. 3, with the daily full warm enema. Drink water, as much as possible, preferably warm, as heating increases its cleansing power. There may be repugnance toward the drinking of water; but it should be taken anyhow, as it will make the vomiting more free and easy with more rapid emptying of the stomach. The heat of the water is soothing to the nerves and the mucous membrane. In case the retching and vomiting cause great strain it is sometimes advisable, except in poisoning, to avoid drinking, since even water often greatly aggravates and prolongs the vomiting when the stomach is "upset."

The vomiting usually will cease when the stomach and the bowels have been emptied. If retching and straining continue, however, hot compresses or any other suitable heat applied over the abdomen, fifteen or twenty minutes at a time, usually will give relief. Hot spinal compresses also may be used, followed by pressure inhibition over the fourth and fifth thoracic vertebræ.

In addition to this immediate treatment, the cause of the vomiting should be sought and removed. Unless this is done the vomiting will be likely to continue or to recur. See also the various diseases and abnormal conditions with which vomiting is associated, also *Fecal Vomiting*.

Vulva
Diseases

VULVA, DISEASES OF.—The vulva, or female labia majora (with the cleft between), is subject to a variety of disorders and diseases, such as varicose veins, blood tumor, elephantiasis, warts (non-specific, gonorrheal, and syphilitic), carcinoma, cysts, fibromyoma, fatty tumor, simple inflammation (vulvitis) and pruritis.

A *varix* (varicose vein) results from the same conditions that cause varicose veins elsewhere: chronic constipation, portal circulation obstruction, visceral disease and general wrong habits of

living engendering toxemia and enervation. It appears mainly in advanced life. There is an irregular dark-blue mass in and beneath the skin, sometimes reaching the size of a child's head.

Treatment consists of correction of malposition of the uterus (if present), bowel regulation, removal of waist obstruction, frequent rest and cold (or hot and cold) shallow sitz-baths or perineal douches and the T-bandage following, to be worn until dry or all night. Sometimes operation is necessary, as in any other severe varicose condition or the injection treatment can be used. If there is interference with walking, and the above suggestions are followed for a few months without relief, operation should be considered, as it is not a major operation.

Hematoma occurs as a result of spontaneous rupture of a varix or other vein, or from traumatism or injury. It is merely a blood tumor, not a new growth. The tumor may develop rapidly or slowly, may reach the size of an orange, and be on one side (in one labium). It is globular, elastic, and violet colored. There is no pulsation upon coughing, as in pudenal hernia. The tumor may be absorbed, or suppuration may take place, or the blood-clot may become encysted. Treatment consists of pressure and the ice-bag in the early stage, to arrest bleeding. If an abscess develops or a cyst-wall is formed, such should be treated according to requirements, usually surgically, though an abscess may rupture spontaneously and heal by proper care.

Vulva,
Hematoma of

Elephantiasis of the vulva is not common, except in tropical countries, especially the tropical islands, in which localities it sometimes occurs in epidemics. Treatment is excision, though the operation always must be performed with extreme asepsis, since there is great danger of septic infection. (See *Elephantiasis*.)

Warts of the Vulva require cleanliness and, when of common form, surgical removal. In case of gonorrheal and syphilitic warts, suitable treatment for the underlying condition may cause them to disappear.

Carcinoma (Cancer) may respond in early stages to the treatment given elsewhere for cancers; but if fairly well advanced or in an advanced stage it should be unmolested or radically excised, according to the opinion of two or more competent surgeons.

Vulva,
Tumors

Cysts can be treated successfully only by opening the sac, dissecting out the sac-wall and closing the wound by stitches.

Fibromyomata are benign tumors, but in the vulva may be mechanical handicaps, due to their location, weight and pressure. They should be excised.

Fatty Tumors (Lipomata) also are benign tumors. They may grow to the weight of ten pounds and may extend as low as to the knees. They require excision.

Vulvitis

Vulvitis (*Inflammation of the Vulva or External Genitals*) rarely occurs independently, but is associated with vaginitis or other inflammations which give rise to irritating discharges. Gonorrhea and uncleanness of the parts are frequent causes. Wrong habits of living are the fundamental causes in all cases, as well as of the other diseases of the vulva. They produce toxemia, which makes inflammation necessary and lowers the vitality so that the woman is susceptible to infection.

The *symptoms* are local vulvar swelling (edema), heat or burning, redness, and pain. The pain may extend to the groin. There also may be a local mucopurulent discharge which causes itching and smarting of the local parts.

Vulva
Diseases,
Treatment

Treatment. If the disease is of gonorrheal origin, it is to be treated in the same manner as gonorrheal vaginitis. If it is the result of local uncleanness or accumulations of impure or foreign matter about the parts the treatment is simple—strict cleanliness must be maintained. This, in an otherwise healthy woman, may be all that is needed. Boric acid in solution may be used to cleanse the parts. It is to be used frequently, sponging the parts with pieces of absorbent cotton dipped in the boric acid solution. The cotton swabs are to be burned as soon as used. Constitutional treatment, however, generally is needed in addition to the local treatment, using the routine given in the treatment of vaginitis. If there is much pain, local hot packs or hot sitz-baths will be found effectual.

Vulvovaginitis is a condition in which the inflammation affects both the vulva and the vagina. The treatment is the same as for vaginitis. (See *Vagina, Diseases of*.)

Pruritus Vulvæ (*Itching of the Vulva*) often occurs without any apparent cause, though it also arises from irritating discharges or diabetes, icterus, or chronic nephritis, which three diseases are associated with irritant substances in the blood (sugar, bile and urea respectively), which irritate the local nerve-endings. It may occur in summer or winter, from thermic causes; or from mechanical causes, such as masturbation, scratching and immoderate handling; or from constipation; or from secretions from diseased bowels or anus; or from parasites. It is necessary to correct or remove the cause, also to apply remedies locally (heat, sitz-baths, vaginal douches or irrigation, or one of various lotions). See *Pruritis Vulvæ*, in alphabetical position.

Warts

WARTS (*Verruca*).—Small excrescences in and on the skin, most commonly upon the hands of children. In appearance and texture they resemble minute sponges. They appear and disappear spontaneously. The cause of their outbreak is unknown; but it may be ascribed to some obscure form of malnutrition. When they

are present in large numbers attention to the general health of the sufferer should result in their disappearance.

Warts may be removed by touching them with a toothpick that has been dipped in a weak solution of nitric acid (or carbolic acid or castor oil). Glacial acetic acid and lunar caustic (nitrate of silver) are also used. Great care must be exercised in using any of the above mentioned remedies, as they all, except castor oil, are both caustic and poisonous. Surround the wart with vaseline or cold cream before treatment to avoid touching the skin around the wart or excrescence with the acid, as this will cause painful burns. The electric needle or concentrated sunlight may also be used in treating warts.

WARTS, VENEREAL (*Papillomata, Venereal Vegetations*).—These rough, irregular growths which sometimes appear upon the genitals, somewhat resemble the center portion of a cauliflower in miniature. In the male they usually develop upon the end of the penis; in the female they may be found around the edges of the vulva. While these growths usually are the result of a venereal disease, they sometimes occur in persons who are not infected but who are unclean or whose genitals are irritated and inflamed from impure secretions. They are painless, light-gray and easily become inflamed and slough off. Apparently they are contagious and are capable of reproducing themselves by auto-inoculation. While they generally are of moderate size, they frequently attain proportions that cause discomfort.

Warts,
Venereal

The *treatment* of these conditions consists of blood-purifying methods, together with strict cleanliness. The application of cloths wet in salt water is to be recommended. If associated with a venereal disease attention must be paid to that complaint as well. While these growths are not dangerous, it is advisable in many instances to have them removed by surgical means.

WATER ON THE BRAIN.—See *Hydrocephalus*.

WATER ON THE KNEE.—A synovitis or inflammation of the synovial membrane of the knee-joint, with pathological increase of synovial fluid. Vigorous rubbing twice daily to improve the local circulation is advised. Cold water bathing also is valuable. Try alternate hot and cold cloths before rubbing and finally apply a cold pack to remain. Also of value is bending the knee as far as possible without discomfort, thus slightly stretching the ligaments and other tissues and improving the circulation. Aside from this, rest would be of great advantage and if the member is painful it would be well to have the knee raised when lying down. If it gets worse one may find it necessary to stop being on the feet and to devote oneself to treatment by these means, combined with rest, until the joint regains a normal condition.

Water on
the Knee

Water-
Blebs

WATER-BLEBS (*Pemphigus*).—Extra elimination in the form of a skin eruption of blisters containing a watery liquid. The disease affects people of all ages. It may be either acute or chronic, and it may be mild or severe, depending upon the degree of toxemia. In the severe cases general blood-poisoning may develop. An accumulation of toxins in the body is always the fundamental cause. Nerve irritation and depletion also are present.

Symptoms. This disease is characterized by a blister-like formation or eruption of red spots in which watery fluid is secreted. The blisters appear in large numbers over the whole body. As a rule they rupture and discharge their contents, when scabs form over the broken skin, these in time drying up and falling off, leaving dark red rings. There is considerable inflammation about these blebs, with pain and severe itching. Scratching exaggerates the symptoms and causes the formation of crusts over the broken surfaces, with greatly increased suffering. There often are fever and diarrhea. The patient becomes markedly emaciated and may even succumb to the disease.

A comparatively mild form of pemphigus may last for months and then terminate in recovery. In this type recurrences are common unless strict treatment is adhered to.

Water-
Blebs,
Treatment

Treatment. An acute attack of pemphigus, if properly treated, is not likely to assume the serious aspect that a chronic case sometimes does. The acuteness of the symptoms generally brings about a rapid elimination and the patient is quickly restored to normal. Every effort should be made, therefore, to assist in this elimination process.

Complete Fast No. 3 should be adopted at the first sign of trouble, drinking plentifully of water with lemon juice flavoring. A full moderately hot enema should be given on the first day or two, if needed, after which the temperature and quantity of the water may be somewhat reduced so that less energy will be required to recuperate from the treatment. A cold wet-sheet pack should be given on the first day; or, if the patient's reactive powers are poor, a hot-blanket pack may be substituted. Whichever is used should be continued until free perspiration has been produced. On the following days a full immersion bath at 102 degrees F. may be given for 45 to 50 minutes, this bath to be followed by a brief cool sponge. If there is much itching, air-baths will be helpful, though the patient should observe care not to become chilled.

Bed rest is not essential unless there is fever. Fresh air is necessary, however, and the patient should practice deep breathing several times a day. In those cases mild enough to permit exercise, activity should be restricted to walking. Relaxation should

be practiced frequently during the day, and extra sleep should be secured. Back and Shoulder Movements 1 to 16 may be given daily.

When the acute symptoms have subsided the fast should be broken by taking orange juice for one day and whole oranges for another day. Thereafter, Milk Diet No. 3 may be adhered to until a fully normal condition has been restored, though any Milk and Fruit Diet, Combination Milk Diet or Salad Diet may be used. The Back and Shoulder Movements may be continued while on the milk diet and the amount of walking may be gradually increased. Continued attention should be given to relaxation, deep breathing and sleep.

In extreme cases, where radical measures are necessary, the best treatment is prolonged immersion in a warm bath at 100 degrees to 102 degrees F. The patient may be suspended in a hammock submerged in such a way that all parts of the body except the head are immersed in the bath and he may be kept there for days and weeks at a time, care being exercised to keep the water at the proper temperature. The water should be changed completely once or twice each day without allowing the temperature to change.

Water-
Blebs,
Hydro-
therapy in

This prolonged immersion in a warm bath has been used throughout Europe and elsewhere for the treatment of this disease with excellent results, the patient sometimes being immersed for months at a time. This treatment is indicated in the more virulent form of the disease, generally known as *Pemphigus foliaceus*. In ordinary cases in which a routine including fasting and other natural means is used, recovery may be accomplished without this extreme submersion measure; but if satisfactory results are not obtained within a reasonable time, then immersion in a warm bath can be depended upon in the most stubborn cases.

WEIGHT, GAINING.—See *Emaciation*.

WEIGHT, REDUCING.—See *Obesity*.

WEN (*Sebaceous Cyst*).—See under *Cyst*.

WETTING THE BED (*Enuresis*).—See *Bed-Wetting* and *Incontinence of Urine*.

WHITES (*Leucorrhea*).—See under *Vagina, Diseases of*.

WHITLOW.—See *Felon*.

WHOOPING COUGH (*Pertussis, Tussis convulsiva*).—An acute eliminative crisis, special characteristics of which are paroxysms of dry coughing, followed by shrill inspirations, giving rise to a whooping sound. The disease is supposed to be due to germs. But, as with other acute diseases, the real cause is a general toxemia, the symptoms being the result of the body's attempts to attain elimination. To those who are in this toxemic condition and

Whooping
Cough

especially susceptible the disease is contagious. Children who are properly fed and cared for and whose vitality is maintained are not likely to develop whooping cough. Adults are much less likely to have the disease than children, though they are not immune.

Whooping
Cough,
Symptoms

Symptoms. The period of incubation of this disease is about one week. The onset is gradual: there are general malaise, symptoms of cold in the head and of bronchitis, and also the presence of slight fever. There may be some disturbance of the digestive organs. The bronchitis becomes more and more severe and more and more paroxysmal until within ten to fourteen days the whoop develops. As a rule the disease increases in severity for four or five weeks and then gradually subsides, taking four or five weeks more before the patient is free from all symptoms, though in weak and undernourished children it may last for months.

During severe paroxysms of coughing the face reddens, the eyes water and a thick, stringy mucus is expectorated and also discharged from the nose. Vomiting frequently occurs during or at the close of a spell of coughing. The face, in severe cases, shows some puffiness and swelling. The vomiting and general digestive disturbances which often accompany the spasmodic coughing lower the resisting power of the patient to the degree that severe and acute bronchopneumonia or bronchitis may arise as a dangerous complication.

Whooping
Cough,
Treatment

Treatment. There is no reason why whooping cough should continue for two or three months, as it frequently does under orthodox treatment, nor should complications develop. These difficulties are a result of suppression of the symptoms. When means are taken to cleanse the body and thereby remove the causes and the need for the disease, it will soon disappear. The exact length of an attack will depend upon the natural vitality of the child, the promptness with which the treatment is begun and the strictness with which it is followed.

Whooping
Cough, Fast
and Milk
Diet in

Complete Fast No. 3 should be adopted when the symptoms first develop, continuing the fast for two or three days and following it by two or three days on orange juice, the length in each case depending upon the age, weight and strength of the patient. In the case of young children orange juice may be allowed during the entire period. The water used may be flavored with a little lemon juice or honey, if necessary to persuade the patient to take large quantities of it. A full warm enema should be given daily.

This period of fasting or fruit juice diet should be sufficient to eliminate fever, after which eating usually should be resumed even though the cough is still present. Milk Diet No. 3 may be

employed, limiting the quantity to a pint or a quart less than the usual amount and allowing more oranges. If on an exclusive milk diet a neutral bath of an hour or more may be taken daily to hasten recovery, though the quantity of milk taken should be increased to the limit and no other hydiatric treatment should be given.

In some cases if fever returns or the coughing paroxysms become more severe, the milk is stopped for a day or two, returning to the orange juice alone. In some cases an ideal diet would be one of the Fruit and Milk Diets, preferably No. 1 or No. 3. In any case if the symptoms have not been practically eliminated within about two weeks an additional two days on orange juice would be beneficial. The milk diet should then be resumed and continued until a fully normal condition has been restored. Unusually severe cases may require further orange diets, but when treatment is begun promptly this seldom will be necessary.

If there is much throat irritation a combination of equal parts of lemon juice and honey may be given occasionally in teaspoonful doses. Some water may be given in addition to the milk if the patient will take it, as plenty of fluid assists elimination through all channels. Enemas should be used if the bowels do not move satisfactorily, as it is important that this channel of purification be kept active. If vomiting is one of the symptoms it should be encouraged by free drinking of water with a little salt or any harmless flavoring that will encourage taking additional water.

It is of the utmost importance that the patient be supplied with sunlight when possible and with fresh air day and night. This will not only shorten the course of the disease, but will render the paroxysms lighter and less frequent. Whenever it is necessary for the patient to be inside, the room should be kept well ventilated, employing extra clothing if necessary to keep warm. During the feverish stage the patient should be encouraged to rest frequently. He should be kept out of doors in all kinds of weather except rain. Even in rainy weather, if a covered porch is available, the patient should remain outside. Fresh air and sunlight are so important that the patient should be provided with them even at the cost of the inconvenience. The sleeping room should be especially well ventilated.

When the patient is up and around, violent play or exercise should be discouraged as these increase the paroxysms of coughing. Complete relaxation several times a day should be prescribed and an afternoon nap should be taken in addition to regular sleep at night. However, there should be moderate open-air activity every day. Plenty of sleep helps greatly in maintaining the patient's

Whooping
Cough,
Sunlight
and Air in

energy, which otherwise is likely to be considerably depleted by the frequent and strenuous coughing. This symptom may be materially lessened, however, by the additional use of packs and compresses.

When neutral baths are not used a cold wet-sheet pack may be given every other day, employing plenty of blankets and, if necessary, hot-water bottles to bring about prompt and complete reaction. If the patient does not react well even with these precautions it would be better to give a hot-blanket pack. Which-ever is used should be continued to the point of free perspiration and followed by a cool sponge bath. Alternate hot and cold spinal compresses may be administered daily, to be followed by general spinal massage or manipulations. This treatment should be shorter and lighter on the day the general packs are given.

If paroxysms of coughing occur at frequent intervals, hot compresses may be applied to the neck and chest until relief is obtained. A cold neck pack should be applied every night, for its help in preventing disturbance of sleep by coughing. If natural sun-baths or ultra-violet irradiations can be obtained the patient should have them daily except in the feverish stage. In this stage the spinal compresses and manipulations should be limited to every other day in order not to overtreat the patient. If the patient is weak it also may be well to limit the cold wet-sheet or hot-blanket pack to the abdominal region until greater strength has been acquired.

When the acute symptoms have subsided a general vitality-building routine suited to the strength of the patient should be followed persistently in order to bring about full recuperation of energy and vitality.

Women's
Diseases

WOMEN, DISEASES OF.—Those abnormalities generally referred to as "Diseases of Women" include the diseases and disorders of the female organs of reproduction; namely, the vulva, vagina, uterus, Fallopian tubes, ovaries and the pelvic tissues. The breast, though a strictly feminine structure, usually is not included, though it properly belongs in the list; so also do the disorders associated with the functions of menstruation, pregnancy and childbirth.

There are many diseases of these organs, some of them extremely common, others comparatively rare. These various diseases are described in their proper alphabetical order in these final two volumes; but it may be well to mention the most important of them here. They are:

Women's
Diseases,
List of

Abortion
Breasts, inflammation of
Breast, tumor of

Fallopian tubes, inflam-
mation of
Leucorrhea

Menopause	Sterility
Menstruation	Tumors
Nymphomania	Uterus, diseases and
Ovaries, diseases of	displacements of
Puerperal fever	Vagina, diseases of
Pruritis vulvæ	Vulva, diseases of

Practically all women have one or more of these diseases in some degree. It is said that diseases of women comprise the largest part and probably the most lucrative part, of the practice of the physician and surgeon. The frequency and commonness of these diseases and disorders is not surprising when we consider the many influences that have an unfavorable effect upon health in general and the condition of the reproductive organs in particular. There are so many inhibitions surrounding the sex life of girls and women that proper sexual hygiene is almost unknown. Hygiene refers not only to local cleanliness, or the use of the vaginal douches (which by a large number of women are used too frequently), but the general care and use of the reproductive organs and proper thoughts relative to their function and uses. Ignorance or carelessness, or both, lead not only to general wrong habits of living, but also to sexual inhibitions or excesses; and the combination of these is the cause of the diseases of women.

Women's
Diseases,
Causes

Among the conditions that have detrimental effects upon women may be mentioned toxemia, overwork, general debility (enervation, also called "weak nerves"), anemia, occupations too nerve-wracking or too strenuous or undesirable, improper carriage, too frequent childbearing, abortions, sexual overindulgence on the one hand and sexual starvation or inhibition on the other hand, medicinal or mechanical interference with pregnancies, infections, hereditary tendencies, etc., usually all summed up under the term improper living.

In considering the *treatment* of the various weaknesses and diseases of women it is necessary to emphasize the importance of constitutional treatment, for the building up of the strength and vitality of the entire body is the most essential factor in their cure. Local treatment, in most cases, is palliative only, relieving local inflammations and soothing and relieving pain. To this extent it is good treatment, as improved local conditions aid greatly in the actual constitutional curative process. But this depends, in the last analysis, upon the improvement of the quality and the purity and the circulation of the blood. Hence in all cases it will be necessary to adopt a general vitality-building routine suited to the patient's condition, regardless of whatever local treatment may be considered. So far as they can be, the causes of the diseases should be removed. This may necessitate

Women's
Diseases,
Treatment

treatment, or merely the voluntary changing of the mode of living so as to discontinue some detrimental practice or habit, though usually it will require both.

Anything which tends to lower the vitality or to undermine the body's resistance or to add to the load of systemic toxemia may be regarded as contributing to the development of the diseases of women; whereas all measures which tend to strengthen and to invigorate the body as a whole and the organs and glands individually, that accelerate the circulation without resulting exhaustion and promote elimination and purification of the blood, will have a curative influence upon disorders of this type, as well as a pronounced preventive influence.

The treatment for the diseases of women will be found under the individual diseases. Besides the conditions listed above may be mentioned *Bartholinitis*, *Cervicitis*, *Gonorrhea*, *Mammary Abscess*, *Milk-Leg*, *Miscarriage* and *Phlegmasia*.

WORMS.—See *Intestinal Worms*.

Writer's
Cramp

WRITER'S CRAMP.—(See also *Cramp* and *Occupational Neuroses*). Owing to its frequency and often to the difficulty experienced in effecting a cure, this form of neurosis is the most important of those nervous affections directly traceable to the occupation of the sufferer.

The disturbance usually begins with spasmodic cramp-like seizures of the fingers or the hand. Difficulty is experienced in controlling the pen, the writing often becoming heavy and labored. Dull pain is felt in the hand and along the arm, and often the hand and arm become temporarily paralyzed so that writing becomes impossible; at other times an uncontrollable tremor arises, when writing becomes illegible.

Writer's
Cramp,
Treatment

Treatment. In connection with the general treatment recommended under *Cramp*, and in connection with the discussion of occupation neuroses, particularly to be advised are Special Exercise Treatments employing the Back and Shoulder Movements Nos. 28 to 37 (See Vol. VI, Sec. 3). Some of these movements will prove too difficult, but they should be attempted. However, much care must be taken not to overfatigue any affected muscles or exhaust the nervous energy. For further details see other references mentioned, also *Spasm*.

Wryneck

WRYNECK (*Torticollis*).—An affection of the neck characterized by shortening or spasm of the muscles on one side, with the result that the head is twisted or pulled to the side and carried in that position. It may be congenital or acquired, steady or spasmodic. The case being far more serious when congenital, also when spasmodic. It sometimes is the result of paralysis and sometimes of spasm of the muscles. The sternomastoid muscle

is the one usually affected and sometimes the only one. The disease often is associated with diseases of the nervous system.

Treatment. Operative measures are sometimes used, but in general are to be condemned, for should important nerves be severed it will become impossible to accomplish anything like a complete cure. Hot neck packs and, particularly, hot packs to the upper spine will be of great value as a means of relieving the spasm and relaxing the muscles of the neck. In some cases alternate hot and cold packs will be better. Heat provided by an infra-red generator, or radiant light and heat, will be even better than packs. Either may be used daily, or the two may be used, on alternate days. Traction is of much value also and may be by traction table or overhead pulley arrangement. See *Traction in Miscellaneous Treatments* (Vol. VI, Sec. 7). Following this use Special Exercise Treatments, particularly Head and Neck Movements Nos. 1 to 11 or 38 to 40 or Self-Applied Neck Manipulations Nos. 11 to 14 that affect this part of the body. Special Manual Treatments Nos. 1 to 10 are also helpful.

Wryneck,
Treatment

In addition to these, a general vitality-building routine, such as elsewhere indicated for the treatment of neurasthenia or other nervous complaints, should be adopted so as to build up the nervous system generally, improve the circulation and establish better nutrition.

XERODERMA.—A dry, harsh and rough condition of the skin, usually regarded as congenital, but susceptible to proper constitutional treatment. (See *Fish-Skin Disease*.)

Xeroderma

YAWNING.—This is not necessarily an expression of disease, but may indicate vital depression, anemia, heart disease, hemorrhage, or toxemia with shallow breathing and insufficient physical activity, but often is caused by suggestion. It is an involuntary exercise of the muscles of the face, a form of stretching exercise. (See *Stretching Exercises*, also *Face Exercises*, Vol. III.)

Yawning

YELLOW FEVER.—An acute eliminative crisis associated with the presence of a spirochete—a protozoan organism known as *Leptospira icteroides*. This is transmitted to man by the bite of a certain species of mosquito. Yellow fever occurs mostly in tropical countries, especially tropical America where these mosquitoes are abundant and where sanitation is poor. While the presence of the organism mentioned evidently is responsible for some of the symptoms of the disease, the real cause doubtless is the wrong habits of living which lower the vitality of the patient and bring an excess of the poisons that furnish food for the germs.

Yellow Fever

The natives who live in the tropical regions are not nearly so often affected with yellow fever as persons who come from other parts of the world. White men living in the tropics are notoriously

lax in keeping fit. Those who live carefully rarely develop yellow fever. Cleanliness, proper hygiene and sanitation are a part, of course, of right living, as well as are proper diet, exercise and fresh air.

Yellow
Fever,
Symptoms

Symptoms. In this disease there is a period of incubation of three or four days, or not more than six days. It runs a rapid course, beginning with a chill and a rapidly developing high fever. There are headache, pains in the back, dry skin, the face and eyes become extremely red and swollen, there are constipation, great thirst, and soreness and tenderness of the abdomen. These last for about three days, when there is a sudden remission of all of the symptoms, lasting for one to three days, this being followed by a period of secondary fever, with a return of all of the other symptoms.

This is the critical period of the disease, the temperature averaging 104 degrees. There are jaundice and intense prostration. Severe vomiting begins, in which quantities of blood resembling black coffee grounds are expelled. In the worst cases hemorrhages from other mucus surfaces are common (epistaxis, hematuria, metrorrhagia, etc.), and cutaneous hemorrhages also may occur. The stools may also be tarry. When these hemorrhages occur the patient is in a very critical condition and the end is near. Total suppression of urine is likely to occur—a very grave symptom.

Yellow
Fever,
Treatment

Treatment. In a case of yellow fever it is well to isolate the patient, for his own sake and the sake of others. Most of his associates will be sufficiently toxemic to be susceptible to the disease; and also if he is alone he will have greater quiet and peace. Complete rest is necessary; and if an extremely well ventilated sleeping room is not available, the patient's bed should be placed out of doors and covered with mosquito netting. The more fresh air the patient can get the better.

As soon as the premonitory symptoms are felt Complete Fast No. 3 should be started immediately. The water taken should be boiled, and used hot on the first day and either hot or cold as desired thereafter. Cool water will more likely be indicated on account of the presence of fever. Two full moderately hot enemas should be given on the first day and one on the second day. Thereafter the quantity and temperature of the water may be reduced to just sufficient to bring about a satisfactory movement, as the smaller enema will spare the energy of the patient.

A neutral bath or a full hot-blanket pack or some other means of inducing copious perspiration should be given and repeated daily until recovery is indicated. Some practitioners favor a cold wet-sheet pack while the fever continues. If the patient

becomes weak, however, the packs may have to be limited to the abdominal region. Hot spinal compresses followed by mild spinal manipulations may be given at some other time of the day; but care must always be observed not to overtreat. If there is suppression of the urine, hot compresses over the bladder often will be found helpful; but a catheter may have to be used. If there is much vomiting of blood, cold compresses, frequently changed, should be applied to the upper spine.

Yellow
Fever,
Hydro-
therapy in

No food should be allowed until all the acute symptoms have subsided, except that it is well to use lemon juice in the drinking water (no sweetening). The fast must be broken gradually, taking two days on acid fruit juices and one or two days on the whole fruit before employing anything more solid. Thereafter, Milk Diet No. 3 would be good if a satisfactory supply of milk can be obtained. If not, a diet of fruits, vegetables and nuts should be used, mainly uncooked, beginning with vegetable soup and light salads. When the more solid foods are added thorough mastication is important, and plenty of water should be taken between meals. Enemas are to be continued as necessary, and cold abdominal packs may be given every other day for ten days. Vitality-building routines, graduated to the strength of the patient, should be carefully followed.

ZOSTER (*Herpes zoster*).—See *Shingles*.

GLOSSARY

This glossary is designed to provide definition for such scientific and medical words and terms which are used in this Encyclopedia as require further classification and interpretation into everyday speech. Of course, the reader understands this is not a dictionary, but simply a brief list of scientific words defined in simple English. The words are listed in this Glossary alphabetically. The word defined appears in black type; the definition in light type. The terms are printed in approved dictionary style, each word being set as it is spelled, with a capital or a small letter accordingly as it is a common or a proper name. The figures in the definitions denote separate meanings.

A

abasia. Inability to walk.

aberration. 1. Slight mental derangement. 2. Non-typical growth or development. 3. Wandering away from the normal condition or type.

abiosis. Absence of life; non-viability.

abort. 1. To give birth before the embryo is viable (liveable). 2. To arrest the development of, as an acute disease.

accretion. 1. An increase in size by addition of similar material. 2. Collection of foreign material on the surface of a tooth (as tartar) or in a cavity. 3. Adhesion, a growing together.

acetone. An abnormal substance present in the urine and in the blood in diabetes, and giving rise to the peculiar odor in that disease. **acetonemia:** the presence of large amounts of acetone in the blood, causing first depression or irritation, later progressive depression. **acetonuria:** the presence of large amounts of acetone in the urine, indicating that albuminous substances are incompletely oxidized. See **ACIDOSIS**.

acidophilus. A species of bacteria which normally thrives in the human intestines and changes milk-sugar into lactic acid.

acidosis. This sometimes is called an acid condition of the blood. In fact, it is a reduced alkalinity of the blood and tissues due to an undue increase in acid elements in proportion to the alkaline elements. **acid-intoxication** is the term given to this condition when symptoms result from it. **acetone acidosis** is the more or less serious acidosis occurring at times in diabetes, also called **acetonemia**.

acid salt. A salt formed by the neutralization of only part of the acid elements, hence retaining acid properties. Example, cream of tartar.

acoustic. Relating to hearing or the perception of sound.

acquired. In relation to a disease, predisposition or habit with which a person becomes afflicted at some time after birth; not by inheritance or congenital.

actinic. Relating to the so called chemically active rays of the solar spectrum; rays possessing actinism, especially the ultra-violet rays. **actinism:** the property of radiant energy by which chemical changes are produced, as in photography and in the production of sunburn or pigmentation. **actinotherapy:** radiotherapy; phototherapy. Treatment of disease by light or radiant energy, employing rays from the sun or special electric-generated lamp, those from radium or other radio active forces, or x-rays. Commonly used to denote treatment by ultra-violet rays. **actinotoxemia:** blood-poisoning by the products of decomposition produced by the excessive action of any form of radioactivity.

activator. A substance which by its presence makes another substance, such as a digestive enzyme, active.

adenitis. Inflammation of a gland.

adeno-. A prefix denoting relation to a gland, as **adenocoele:** a cystic tumor of a gland; **adenoma:** a tumor of a gland; **adenopathy:** disease of a gland or of the lymph-nodes.

adhesions. Bands of more or less organized fibrinous exudate discharged onto serous membranes and connecting with the opposite or an adjacent surface.

- adipose.** Fatty, or pertaining to fat.
- adjustment.** Besides the usual meaning, the chiropractic term for the reduction of a vertebral subluxation to relieve pressure upon spinal nerves.
- adjuvant.** Something that assists in preventing or curing disease.
- adnexa, annexa.** Conjoined parts or appendages; the adnexa (or annexa) of the uterus are the Fallopian tubes and the ovaries.
- adrenal.** Upon or near the kidney, denoting the adrenal gland, one above each kidney. **adrenalin:** a powerfully active substance obtained from the adrenal or suprarenal glands.
- adynamia.** Lack or loss of vital powers through heredity or disease.
- aerate.** To charge with air, carbon dioxide, or other gas.
- aerophagy.** Swallowing of air.
- aerophobia.** Abnormal and extreme dread of fresh air or air currents.
- aerotherapeutics, aerotherapy.** Treatment of disease by fresh air. **aerothermotherapy:** treatment of disease or symptoms by hot air.
- afebrile.** Without fever, non-febrile.
- affection.** An indifferent term for disease, or abnormal condition of the body or mind.
- afferent.** Denoting a nerve, blood-vessel or lymphatic that brings impulses, blood or lymph, respectively, toward the center. The opposite of efferent.
- affusion.** The therapeutic application of water to the body or to any part of it by pouring.
- after-birth.** The placenta and membranes with which the fetus is connected to the uterus, which are expelled after birth of the child.
- after-image.** The image of an object persisting after the eyes are closed or the object removed.
- agalactia.** Failure of milk secretion after childbirth.
- agar-agar, agar.** A gelatinous substance prepared from Ceylon moss in Japan and India and used in the Orient to thicken soups and make jellies. In bacteriology it is used as a base for culture media. It is used abundantly today to supply roughage in case of constipation.
- agenitalism.** The group of symptoms resulting from absence of ovaries or testicles, as in castrated persons.
- agnail.** Hangnail; an inflammation or sore under or around the nail.
- agraphia.** Absence or loss of the power to express ideas in writing; a form of aphasia.
- agromania.** Intense and morbid desire to be in open places, or to live in solitude.
- ague.** 1. Malaria, with chill, fever and sweating. 2. A chill. **ague-cake:** the enlarged spleen present in chronic malaria.
- air-hunger.** Difficult breathing in which the respirations are deep and labored, as is sometimes seen in acid-intoxication.
- air-swallowing.** **Aerophagia.** Sometimes present in hysteria.
- albinism.** Absence of pigment in the skin, hair, etc., partial or complete.
- albumose.** An albumin formed during protein digestion, and changed during further digestion into peptone, a more soluble protein. **Albumosuria:** the presence of albumoses in the urine.
- alexia.** Inability or loss of ability, due to brain disease, to understand written or printed words and sentences, though they can be seen; word-blindness.
- algae.** A division of plant-life related to and containing sea-weeds.
- alkali.** The chemical opposite of acid; also known as a base.
- alkaloid.** A substance found in various parts of plants and responsible for the specific medicinal effect of these plants.
- alkalosis.** Undue alkalinity of the blood, a condition in which the balance between the acids and alkalis has been disturbed in favor of the latter.
- allopathy.** So called "regular" medicine (the practice of), as distinguished from eclecticism and homeopathy. "A system of therapeutics in which disease is treated by exciting a morbid process of another kind or in another part—a method of substitution."—Stedman's Medical Dictionary.
- alterative, alterant.** A remedy which produces or is supposed to produce a gradual favorable change in metabolism or in disordered functions of the body.
- amaurosis.** Total loss of vision without discoverable eye defects.
- ambidexterity.** The ability to use right and left hands equally well.
- amblyopia.** Weakness of sight without apparent change in the eye structures; the first degree of amaurosis, though the latter does not necessarily follow amblyopia.

ambrine. The trade name for a mixture of oil of amber, paraffin and wax, used locally for the relief of burns and frost-bites.

ambulant, ambulatory. 1. Pains and other symptoms that shift locations. 2. A patient not confined to bed by illness or accident.

ameba. A one-celled organism.

amino-acid. A complex weak acid containing nitrogen. Protein is made up of numerous amino-acids, to which the protein is broken down in the process of digestion.

ammothrapy. The application of sand-baths for healing purposes.

amylase. A digestive ferment found in the pancreatic juice. It changes starch to maltose or malt-sugar.

anabolism. Constructive metabolism; the process of assimilation and conversion of nutritive material into living substance. The opposite of catabolism.

anacidity. Without acidity, especially noting absence of hydrochloric acid in the gastric juice.

analgesia. Absence of sensibility to pain. **analgesic, analgetic:** a remedy to stop or ease pain.

anaphrodisiac. 1. Repressing or destroying sexual desire. 2. An agent which produces this effect.

anaphylaxis. Increased susceptibility to infection, or to the action of a foreign protein introduced into the body following a primary infection by the protein or a primary injection of such protein (as in the case of certain tests for susceptibility to disease). The opposite of immunity.

anastomosis. A natural direct or indirect communication between two blood-vessels or other tubular structures, or between nerves by nerve-fibres. Such a communication may develop after injury or surgical removal of an existing anastomosis.

anemic. Deficient in blood or in red blood-corpuscles, usually caused by lack of food iron.

angitis, angitis. Inflammation of a blood-vessel or lymphatic.

angina. 1. Inflammatory affection of the throat from any cause. 2. A severe cramp-like pain.

angio. A combining form relating to blood-vessels; as **angiolith**, a "stone" in a blood-vessel wall; **angioma**, a tumor in the wall of a blood- or lymph-vessel; **angiopathy**, any disease of a blood-vessel or lymphatic; **angiospasm**, a spasm or spasmodic contraction of the smaller blood-

vessels, causing elevation of blood pressure.

anidrosis, anhidrosis. Abnormal reduction or suppression of perspiration.

anhydremia. Abnormal reduction of the fluid portion of the blood.

anhydrous. Containing no water.

ankylosis. Fixation or undue rigidity of a joint. **Bony** or true ankylosis is one between the bony members of a joint; **false** or fibrous ankylosis is due to development of fibrous bands between the bones forming the joint.

annexa, adnexa. Appendages; parts accessory to the main organ or structure. See **ADNEXA**.

anodyne. 1. Soothing pain. 2. An agent that relieves pain.

anorexia. Loss of appetite.

anosmia. Loss of the sense of smell.

antrum. A chamber or cavity in bone. **antrum of Highmore:** the large cavity in the bone of each cheek, communicating with the nasal cavity.

aorta. The large, chief artery of the body that leaves the heart to supply blood to all parts. **aortic:** relating to the great arterial blood-vessel (the aorta) leading from the heart, or to the aortic orifice of the left atrium (auricle) of the heart.

apepsia. Extreme indigestion; dyspepsia; complete loss of digestion.

aperient. A mild laxative; slightly cathartic. Usually applied to mildly laxative spring waters.

aphagia. Inability to swallow.

aphasia. Defect or loss of the power of expression by speech, writing, or signs, or of appreciating spoken, written or printed words.

aphonia. Loss of the voice due to disease or injury of the speech organs.

aphrodisiac. 1. Exciting sexual impulses. 2. Anything (especially a drug) that arouses or increases sexual desire.

apnea. Inability to get one's breath; cessation of respiration.

aponeurosis. A thin fibrous or tendinous sheet from which flat muscles arise, or to which they are attached.

appetite-juice. Gastric juice secreted while eating, governed largely in quality and quantity by the appetite (hunger) and relish for the foods eaten.

apyrexia. Absence of fever.

aqua. Latin for water. **aqueous:** watery. **aqueous humor:** the watery fluid in the eye chambers.

arbor vitae. 1. The tree-like outlines seen within the cerebellum when it is cut through from front to back.

B

2. Series of ridges within the cervix of the uterus.
- Argyll-Robertson pupil or symptom.** Failure of the pupil to contract upon exposure to light, while accommodating to distance. It is a symptom of importance in locomotor ataxia and general paralysis.
- armamentarium.** The outfit of a practitioner or institution aiding in the practice of medicine or surgery (medicines, instruments, books, etc.).
- arteriole.** Any minute arterial branch.
- arteritis.** Inflammation of an artery.
- arthritis.** Inflammation of a joint.
- ascites (as-cit'êes).** Abdominal dropsy; hydroperitoneum.
- asepsis.** Absence of septic matter, or freedom from infection. **aseptic:** not septic; free from septic material.
- asthenia.** Debility; loss or lack of strength.
- asthenopia.** Weakness or easy tiring of the eyesight; eyestrain.
- atavism.** Inheritance of characteristics from remote ancestors, characteristics that have been dormant in the intervening generations. See **REVERSION**.
- ataxia.** Loss of the power of muscular coordination.
- atheroma.** Degeneration of the coats of blood-vessels.
- athrepsia.** Insufficient nutrition in the newborn; marasmus of the newborn.
- atony.** Absence or lack of normal tone, or of vigor and tension; abnormal relaxation; flaccidity.
- atrophy.** A wasting of tissues and diminution of size of a part or of the body as a whole.
- auricle.** 1. The flap of the ear. 2. Formerly one of the upper chambers of the heart, now called an atrium.
- auscultation.** Listening for sounds and to sounds within the body.
- autogenous.** Originating within the body or a part of it.
- autointoxication, autotoxemia.** Poisoned by absorption of waste products of metabolism or by the products of decomposition within the intestines.
- autosuggestion.** Retaining in the mind some idea or concept with the purpose of producing a desired change in either the mental processes or the physical organism.
- autotherapy.** 1. Self-treatment. 2. Spontaneous cure of disease. 3. Treatment of disease by administering the patient's own pathological excretions or blood, specially treated before injection.
- axilla.** The armpit; the space under the arm.
- bacillus.** Often used for any germ or microorganism. Specifically, a rod-like germ, and so distinguished from cocci (round or dot-like) and other types of bacteria.
- bacteria.** Vegetable microorganisms (plural of bacterium).
- balneotherapy.** The treatment of disease by baths; hydrotherapy.
- bartholinitis.** Inflammation of a vulvovaginal (Bartholin) gland.
- basal metabolism.** The rate of metabolism or oxidation going on in the body when no food is being digested and no muscular exercise taking place.
- benign.** Said of growths especially, but also of illness, meaning not malignant or dangerous, or not recurrent.
- bifurcate.** Divided like a fork; two-branched.
- bile-cyst.** Sometimes used for gall-bladder.
- biliary.** Pertaining to the bile.
- bleeder.** A person having congenital or inherited bleeder's disease; a sufferer from hemophilia.
- blind-gut.** The cecum, or first part of the colon.
- blind-spot.** The spot on the retina where the optic nerve enters, and which does not record visual objects as does the rest of the retina.
- blood-cast.** A urinary cast of coagulated blood.
- borborygmus.** Rumbling in the abdomen from gas in the intestines.
- botulism.** Poisoning, generally fatal, caused by specific bacteria that sometimes develop in canned food.
- bougie.** An instrument for dilating an orifice or passage, usually the urethra of the male.
- brachial.** Pertaining to the arm (Greek *brachion*, arm).
- bradycardia.** Unusually slow heart-action.
- brash.** Burning sensation in the stomach, with sour belchings; water-brash; pyrosis.
- breastpang.** Angina pectoris.
- bromidrosis.** Fetid sweating.
- bronchiole.** A minute bronchial tube.
- bulimia, boulimia.** Abnormally large appetite.
- bursa.** A closed sac containing fluid over a prominent part or where there is friction, as where a tendon plays over a bone.

C

cacao. Seeds of a tree (*Theobroma cacao*), from which cocoa, chocolate

and cocoa (cacao) butter are derived.
cachexia. A depraved state of health and nutrition, resulting from some chronic constitutional disorder, especially cancer.

calisson disease. See **BENDS**.

calcareous. Containing lime, or, more correctly, calcium carbonate. Chalky.

calculus. A stone-like accumulation in any organ or cavity.

calor. Heat. **caloric, calory:** strictly speaking, a unit of heat; but used to measure the fuel and energy value and also the fat-forming properties of food. **caloric:** relating to a calory or to heat.

carbohydrate. The group of food-fuel substances composed of sugars, starches and related compounds.

carbon-arc. The arc of flame formed at the ends of two carbons as the electric current passes across the open space from one to the other.

carcinoma. A form of cancer, specifically of the epithelium or of gland cells.

cardia. The opening into the stomach at the esophageal end; the left portion of the stomach (also Greek for heart). **cardiac:** 1. relating to the heart. 2. relating to the esophageal entrance into the stomach. 3. a person suffering from heart disease. 4. a remedy with tonic effect. **cardiac insufficiency:** failure of cardiac compensation, or leaking of one or more of the heart valves.

caries. 1. Death of bone in minute areas or by slow stages. **carious:** Related to or affected with caries. 2. Gradual decay of a tooth affected with caries.

carminative. 1. Preventing the formation of flatus or gas in the stomach or intestines. Causing the expulsion of flatus. 2. An agent that prevents or causes the expulsion of flatus.

caseation. Turning to, or resembling, a cheesy substance.

casein. The chief protein element of milk which forms the curd of clabber and cheese.

catabolism. Destructive metabolism. See **METABOLISM**.

catalysis. Chemical decomposition caused or hastened by an agent that has no part in the chemical process or is returned to its original state after the process is completed. **catalyst:** a chemical activator which speeds up chemical changes.

catamenia. Menstruation.

catheter. A slender hollow tube for withdrawing fluids from cavities, especially from the urinary bladder.

caul. A portion of the amniotic sac (bag of waters) over a child's head at birth; once thought to indicate that the child so born would never drown.

canterize. The application of a caustic or instrument having a corrosive or burning effect, for sterilization, as of a wound.

cervical. Relating to the neck or to a cervix, as the uterine cervix.

Cheyne-Stokes breathing or respiration. A form of breathing where successive respirations are progressively deeper until a certain point is reached, then become progressively shallow to a certain point where the breathing remains suspended for fifteen seconds or so, with repetition of this form.

chill. A pronounced feeling of coldness. A rigor, with shivering, and internal elevation of temperature.

chlorophyl. A complex nitrogenous compound forming the green pigment in plants. The presence of iron is necessary before it is deposited in the plant.

cholesterol. A fat-like substance found in nerve tissue.

chondrin. A substance derived by boiling cartilage and resembling gelatin.

chorioid, choroid. The middle coat of the eyeball. The first term is correct, but is less often used than the latter.

chorea. St. Vitus's dance. **choreal, choreic:** relating to chorea.

chromosome. A thread-like body in the nucleus of a cell which divides lengthwise upon cell-division, one-half going to each of the two new cells, and having to do with at least physical characters in the resulting product.

chromotherapy. The treatment of disease by means of colors, especially colored lights.

chyle. The milky fluid present in the lacteals after digestion. **chyluria:** the presence of chyle or a milky substance in the urine, containing globules of fat.

chyme. The food that enters the small intestine after having undergone partial digestion in the stomach.

cicatrix. A scar.

-cide. A suffix denoting destroying of that which forms the main part of the word; as **bactericide**, a destroyer of bacteria.

circumduction. Moving in a circular direction, as in circular movements of the trunk or an extremity or the head.

cirrhosis. A degeneration of working cells and overgrowth of the connective tissue cells of the organ affected.

- cleft-palate.** A congenital separation in the roof of the mouth resulting from failure of the palate bones to unite during development. Hare-lip usually is associated with it.
- climacteric.** A climax. Usually used in reference to the change of life.
- climatology.** The study of climate, and its relation to health. **climato-therapy:** the treatment of disease by climate, involving a change of residence, temporary or permanent, or travel.
- clonic.** A condition marked by alternate contraction and relaxation of muscles.
- clot.** 1. Coagulated blood; a coagulum. 2. To coagulate.
- clyster.** An enema or rectal injection.
- coccus** (plural, **cocci**). A round bacterium; usually attached to a word describing its kind; as pneumococcus, of pneumonia.
- coition.** Sexual intercourse. Usually coitus is used, its meaning being the same.
- coles** (ko'lēz). Penis. **coles femininus:** clitoris.
- colloidal metal.** A metal specially prepared in solution by the aid of electric sparks in distilled water.
- colostrum.** A laxative fluid secreted in the breast before and during the first day or two after childbirth.
- color-index.** A figure denoting the amount or percentage of hemoglobin in each red blood corpuscle, the average color-index of human blood being about 0.85.
- comatose.** In a condition of unconsciousness, or coma, or relating to such a condition.
- coma vigil.** Muttering delirium in a person partially conscious, as in a delirious fever.
- comedo.** Blackhead. **comedones:** blackheads.
- compensation.** Heart enlargement and strengthening to make good the deficiency caused by a valvular disease of the organ. **compensatory:** denoting a change to make good a defect; as a **compensatory curvature** in one region of the spine to counterbalance one in another region.
- complex.** In psychology, "an association of mental elements which have a common affective bond, and thus tend to act in the mind and to enter consciousness together." Or, "all the ideas, feelings, impressions, etc., associated with a given subject."
- inferiority complex:** the feeling of inferiority; the actions and mannerisms resulting from such feeling.
- symptom complex:** the symptoms associated with a disease and constituting a "picture" of that disease.
- concomitant.** Accompanying, or occurring at the same time. Said usually of symptoms.
- conjunctiva.** The mucous membrane covering the eyeball and lining the eyelids.
- contagium.** The disease-causing substance of any infectious disease.
- contractile.** Having the power to contract under suitable stimulus. **contractility:** the property of shortening under stimulation. Said of muscles.
- contracture.** A state of permanent contraction or rigidity, especially of the muscles.
- contraindication.** A condition, general or local, or a symptom, which makes it inadvisable to follow some procedure of treatment generally beneficial.
- copulation.** Sexual intercourse.
- corrective.** 1. Reducing the action of anything injurious. 2. A drug or other measure which modifies or eliminates the injurious effect of some other agent.
- cortex.** 1. The outer layer or covering, as of the kidney. 2. The outer, gray-cell layer of the brain. **cortical:** relating to the cortex.
- costal.** Relating to a rib (Latin *costae*, rib). **costal cartilage:** the cartilage attaching a rib to the sternum or breast-bone.
- counterextension.** Fixing of the body so that it will exert a counter-pull against extension placed upon a limb, as in case of fracture.
- counterirritant.** An agent producing a superficial irritation, perhaps a blister, to cause a superficial congestion, or increase in circulation, in order to relieve an internal irritation or congestion.
- counter-poison.** An antidote or anti-toxin.
- creatinine.** A poisonous decomposition product of protein.
- crepitation.** 1. A crackling sound, sometimes in the lungs, due to unnatural moisture. 2. The sensation felt when the hand is held over a broken bone when the bone is moved.
- crepitus.** 1. Crepitation. 2. A noisy discharge of flatus or gas from the bowel.
- crisis.** The critical or turning point of a disease. **healing crisis:** a temporary acute return of former symptoms during the process of cure or im-

improvement of chronic disease by natural methods of treatment.
crypt. A small hole, pit or follicle.
cul-de-sac. A blind pouch or sac, one closed at one end.
cupping. The use of a vacuum cupping-glass or rubber cup to increase local circulation, much on the order of counterirritation.
cutaneous. Pertaining to the skin (*cutis*); tegumental; tegumentary.
cuticle. The outer layer of the skin; the epidermis.
cyanois. A blueness of the skin from deficient oxygenation of the blood.
cyst. A bladder or sac containing fluid, normal or abnormal. **cystitis:** inflammation of the urinary bladder. **cholecystitis:** inflammation of the gall-bladder. **cystocoele:** hernia or protrusion of the bladder (urinary) or a part of it.

D

Dark Ages (Middle Ages). The medieval period between ancient and modern times, probably beginning about the 6th century and ending about the 15th century A.D. Dark Ages is applied to all or most of this time because of failure of intellectual development during the period.
debilitant. That which weakens. **debility:** weakness.
decidua. That part of the uterine lining that undergoes special modification in preparation for and during pregnancy and forms the envelop for the fetus.
decline. A chronic progressive disease, or indefinite state of ill health.
decubitus. 1. A bed-sore. 2. Posture of a patient in bed. **dorsal decubitus:** lying on the back. **lateral decubitus:** lying on the side. **ventral decubitus:** lying on the abdomen.
defervescence. The gradual decline of temperature from fever to normal. See **LYSIS**.
deglutition. Swallowing.
dejecta. Feces.
demulcent. Soothing; bland; relieving to irritation or inflammation.
deplatory. 1. An agent that destroys or removes hair. 2. Having power to destroy or remove hair.
depletion. 1. Removal of fluid or blood accumulations. 2. Reduced strength and energy from excessive withdrawal of blood or fluids. **vital depletion:** enervation; lowered vitality from any cause.
depuration. Act or process of eliminating or purifying.

derivative. That which serves as a counterirritant or that shifts blood or other fluid and thus relieves congestion; revulsive.
dermatitis. Any inflammation (*itis*) of the skin (*derma*).
desquamation. Peeling or shedding of scales or flakes from the skin, especially after an acute eruptive fever.
detoxicate. To remove or reduce toxins or poisons; to lessen their poisonous nature. **detoxify:** detoxicate.
dextrin. A gummy substance made by heating starch. It is intermediate between starch and sugar.
dextrose. The simplest sugar, found in many fruits, also in the human blood. **Glucose.**
diaphoresis. Profuse perspiration. **diaphoretic:** causing perspiration; an agent or medicine that causes profuse perspiration.
diastole (di-as'to-lē). Dilation or relaxation of the heart after its systole or contraction.
diathermia. 1. A form of high-frequency electrical current that increases circulation and temperature within tissues. 2. The condition of local elevation of temperature and congestion or hyperemia resulting from such a current.
diathesis. A constitutional predisposition or tendency to a disease; as the gouty diathesis, neuropathic diathesis, hemophilic diathesis, rheumatic diathesis, spasmodic diathesis, strumous diathesis, uric-acid diathesis.
Dietl's crisis. Sudden paroxysmal attacks of pain in the abdominal and lumbar regions, with nausea and vomiting, sometimes occurring in cases of floating or wandering kidney.
diplopia. Double vision: separated images on the two retinas for a single object perceived.
disaccharide. A sugar formed by combining two simple sugars. Cane-sugar is an example.
distal. Situated toward the end. The opposite of **proximal**.
diuresis. Profuse flow of urine. **diuretic:** 1. Causing profuse secretion of urine. 2. An agent causing profuse urination.
dolor. Pain, one of the classical signs of inflammation. See **INFLAMMATION**.
dominant. In biology, referring to a characteristic of either parent which has carried through several past generations and appears in the majority of the descendants. The opposite of **recessive**.

- dorsal.** Pertaining to the back. **dorsum:** the back.
- douche.** A stream of water or other fluid directed against a part, internally or externally. Sometimes confused with irrigation.
- ductless glands.** Glands that have no ducts for carrying their secretions to the blood, but give up these secretions by absorption. Also termed blind glands, blood glands, closed glands, endocrinous glands, and internal secretion glands.
- dys-** A prefix meaning difficult, bad, painful, or abnormal. **dysfunction:** abnormal functioning, or incomplete functioning. **dysmenorrhea:** painful menstruation. **dyspnea:** difficult breathing. **dystocia:** difficult childbirth. **dysuria:** painful urination.

E

- eclectic.** Applied to a system of medicine, that which employs products of plants and no mineral drugs. It also means picking out the best of all systems; or selecting from all sources what is thought to be the best. **eclecticism:** eclectic practice.
- economy.** Often used to denote the body as a whole.
- ectopic.** Out of position, applying to organs. **ectopic gestation:** pregnancy occurring in the Fallopian tube or elsewhere than in the uterus
- edema (oedema).** Swelling from accumulation of serum in the connective tissues. Dropsy; hydrops.
- efferent.** Denoting a nerve, blood-vessel or lymphatic that brings impulses, blood or lymph, respectively, from the center. The opposite of afferent.
- effleurage.** A stroking movement given in massage.
- electrode.** One of two appliances (one attached to each pole of the electric current) that is directly applied to the body. Sometimes there is but one electrode used, as in "violet ray."
- electron.** A unit of negative electricity which, with other electrons, revolves around the positive proton to form or constitute the atom. The beta rays are formed by (or they are) the electrons emitted from the atoms of radioactive substances.
- electrotherapy.** The treatment of disease or abnormal conditions with modified electrical currents.
- elimination.** Throwing off waste substances that would be detrimental if retained. Often used wrongly to mean only bowel elimination.
- eliminative diet.** A type of diet that aids the body in casting out wastes or excess substances, itself supplying no excesses.
- embolism.** The obstruction of a vessel by some substance brought there by the circulation; a clot usually, but also other foreign substances. **embolus:** the obstructing substance producing embolism.
- embryo.** The product of conception till the end of the third month. 2. Anything in the early or beginning stages. **embryonic:** relating to or in the nature of an embryo.
- emesis.** The act of vomiting. **emetic:** causing vomiting; a medicine that causes vomiting.
- emia.** A suffix referring to the blood; as hyperemia, lithemia, septicemia, stercoremia, toxemia.
- emollient.** Soothing; demulcent. A soothing application or medicine.
- emphysema.** Gas or air abnormally present in the tissues.
- empiric.** One whose skill in treating diseases is derived solely from experience; often called a charlatan.
- empirical:** empiric. Depending upon experience or observation, without regard to theory or science. Many physicians who are not empirics practice to some extent empirically.
- empyema.** Pus in a cavity, as in the chest.
- emulsion.** Fat finely divided and held in suspension in another liquid. Cream and mayonnaise are emulsions.
- emunctory.** 1. Eliminative or excretory. 2. An eliminative organ.
- encumbrance.** A burden or impediment. Usually used by nature curists to denote toxemia, either inherited or acquired.
- endemic.** Occurring frequently or more or less continually in a certain region. Said of a disease. (Compare with epidemic, pandemic, and sporadic.)
- endo-** A prefix meaning within; as **endocardium:** the lining of the heart; **endocarditis:** inflammation of the heart lining, which, if it involves the valves of the heart, is called valvular endocarditis; **endocrine:** an internal secretion gland or its product; **endogenous:** being formed or produced within the body or some part of it; **endometritis:** inflammation of the lining of the uterus (**endometrium**).
- end-organ.** The specialized structure containing the terminal fibers of a

- nerve. End-organs are in muscle tissue, skin, mucous membranes, and glands.
- end-product. The final product resulting from chemical changes involved in breaking down a complex substance.
- enema. A rectal injection. Pronounced *en'-ma*, not *a-nee'ma*.
- engender. To cause, or give rise to.
- entero-. A prefix meaning intestinal; as **enterocele**: an intestinal hernia; **enterocolitis**: inflammation of the mucosa of the small and large intestines; **enterolith**: a calculus or stone formed in the intestine; **enterosepsis**: intestinal autointoxication; **enterotoxiation**: intestinal autointoxication; **enterotoxism**: enterosepsis.
- enuresis. Involuntary emptying of the bladder. **nocturnal enuresis**: bed-wetting.
- enzyme. A chemical ferment causing chemical changes. Digestive juices contain ferments.
- epi-. A prefix denoting upon, over, above, on the outside of. **epidermis**: the scarf-skin or outer layers of the skin; **epigastric**: relating to the epigastrium; **epigastrium**: the abdominal surface in front of the stomach; the pit of the stomach; **epithelioma**: a cancerous growth originating in the epithelium; **epithelium**: a tissue of one or more layers of cells, with little intercellular tissue, lining tubes, canals and cavities.
- ergotherapy. Treatment of disease by muscular exercises.
- erotic, **erotal**. Pertaining to sexual love or passion; amatory. **erotism**: a condition of sexual excitement.
- erotogenic**: producing sexual or erotic desires. **erotomania**: 1. Insanity characterized by exaggerated sexual passion or attraction to the opposite sex. 2. A mental disorder due to or marked by excessive and irrational love.
- eructation. Belching. Gas or acid fluid raised in small amounts from the stomach involuntarily, or the act of raising it.
- etiology. The cause of disease, scientifically considered.
- eunuch. A male whose testicles have been removed; one castrated. **eunuchoid state**: hypogonadism.
- ethnics. The science that deals with betterment of the human race and society through improvement of environment rather than by mate selection.
- eversion. A turning out, or inside out.
- evolution. 1. The doctrine that teaches that all existing animal life developed by gradual changes from simpler forms, originally springing from one-celled organisms. 2. Development of cells, embryo and fetus from the time of conception until adulthood.
- exacerbation. An aggravation or increase in symptoms of a disease.
- excoriation. Removal of the superficial layers of the skin or mucous membrane.
- excescence. Any abnormal outgrowth.
- exhibitionism. A state of insanity or mental aberration in which the genitals are shown to one of the opposite sex.
- expectant treatment. Management of an illness by watching for symptoms and treating these as they arise, giving little active treatment.
- expectorant. That which causes expectoration or spitting.
- extensor. A muscle that straightens an extremity. The opposite of flexor.
- extirpation. Complete removal or eradication.
- extravasation. The abnormal escape, by oozing, or seepage, of blood or other fluid from its normal vessel into the surrounding tissues.
- exudate. A substance that has oozed or extravasated into the tissues or into a cavity.

F

- fascia**. A fibrous sheet that covers the body beneath the skin, and that also covers muscles and bundles of muscle fibers within muscles.
- fatigue-fever**. An elevation of temperature resulting from excessive or prolonged muscular activity.
- fatigue poison**: fatigue toxin; toxins formed in the muscles during pronounced physical activity, and thought to give rise to tiredness.
- fatigue syndrome**: effort syndrome; the symptoms associated with continued or excessive physical exertion, which include breathlessness, palpitation, pain in the heart region, dizziness, sometimes fainting.
- febrifuge**. A remedy often given to reduce fever. **febrile**: relating to fever; feverish.
- fecal**. Relating to bowel wastes. **feces**: waste substance discharged from the rectum. Also spelled *faeces*.
- ferment**. A chemical ferment is an enzyme, but the term ferment is also used for yeast and bacteria that cause fermentation. **fermentation**:

any change caused by microorganisms, usually with the creation of gas or alcohol. During the process of fermentation a substance is separated down to its simpler compounds or elements.

fetus. The unborn child after the end of the third month (see EMBRYO). **fetation:** pregnancy; the formation of a fetus in the uterus. **feticide:** induced abortion; destruction of the fetus in the uterus.

fimbria. A fringe; especially the fringe-like end of the oviduct.

flatulence. Excessive formation of gases in the digestive tract. **flatus:** gas or air in the stomach or intestines, or that which is passed from the rectum.

flexor. A muscle which by contraction bends an extremity (flexes a joint). The opposite of **extensor**.

flexure. A bend, curve or fold.

flora (intestinal). The bacterial growth in the intestines. This may be favorable or unfavorable to health, depending upon the predominating germs present.

fluctuation. A wave-like motion observed or felt in the contents of a cavity having soft walls (as the abdomen), during palpation.

follicle. 1. A small closed or nearly closed cavity, or a deep, narrow-mouthed depression. 2. A small simple tubular gland.

fomentation. A hot compress; or a poultice or stupe.

fomites. Clothing and other substances which may transmit disease through absorbing or having adhered to them the contagium of disease.

foramen. An opening through bone or a membranous structure.

foreskin. The prepuce; the skin covering the glans penis.

formalin. A 37 per cent solution of formaldehyde.

formication. Sensation as if insects were creeping on the skin.

frenum. A fold of mucous membrane that supports or restrains a part; as that at the center of the tongue beneath, or that attaching the lip at its center to the gum.

fructose. Another name for the simple sugar levulose.

fuel food. Foods that supply fuel to the body; more narrowly used for foods that supply fuel only, such as refined fats and sugars.

fundament. 1. A foundation. 2. The anus.

fundus. The part of a hollow organ farthest removed from its mouth.

funis. The umbilical cord.

furuncle. A boil. **furunculosis:** a condition in which there appears a crop or successive crops of boils.

G

galactophagous. Subsisting on milk alone. **galactotherapy:** treatment of disease by the milk diet. Used also to apply to treatment of a breast-nursing infant through its mother's milk, the drug being given to the mother. **galactose:** a simple sugar not found in nature but developed in the digestion of lactose or milk-sugar.

gamma rays. Waves more or less similar to x-rays, having great penetrating power, and given off by radium and other radioactive substances.

ganglion. Any mass of gray nerve-tissue that serves as a center for nerve impulses.

gangrene. Tissue death with putrefaction.

gastr- A prefix denoting stomach (from *gaster*, Greek for belly or stomach). **gastric:** relating to the stomach. **gastritis:** inflammation of the stomach. Many people wrongly call gas in the stomach, with belching of gas, gastritis. The "gas" in gastritis, it will be seen by noting the origin of the term, has nothing to do with gas or air.

gavage. Feeding by a stomach-tube.

genupectoral. Noting a position of the body on the knees (*genu*) and chest (*pector*—breast); the knee-chest position.

gingivitis. Inflammation of the gums.

gin-drinkers' liver. Hob-nailed liver; a hardened (sclerotic) and reduced (atrophic) liver due to prolonged use of alcoholic drinks.

girdle pain. The lancinating or shooting pains that pass about the waist in locomotor ataxia and other diseases of the spinal cord.

gland. An organ for taking substances from the blood, either to eliminate or to use in the production of its secretions.

glans. When unqualified this usually means the glans penis, the conical head of the penis. **glans clitoridis:** the small erectile mass forming the head of the clitoris.

gliadin. A protein found in wheat gluten.

globus hystericus. A sensation as if a ball were in the throat or as if the throat were being compressed, occur-

ring in some cases of major hysteria, occasionally in minor hysteria also.
glottis. The opening between the vocal cords. Some consider it as the entire vocal apparatus that is located in the larynx.

glucose. A synonym for dextrose, the simple sugar found in the blood.

gluten. A compound protein forming the gummy substance of wheat.

glutenin. A protein which, together with gliadin, forms wheat gluten.

glycogen. Animal starch, the form in which carbohydrate material is stored in the liver.

glycosuria (glucosuria). The excretion of sugar (glucose) in the urine.

gonad. A sexual gland. **female gonad:** the ovary; **male gonad:** the testicle. **gonadal:** pertaining to a gonad, either male or female.

goutiness. Latent gout. **gouty diathesis:** a condition in which one is susceptible to develop gout or symptoms and conditions considered related to gout, such as scaly skin diseases, hardening of the arteries, eye inflammations, and certain stomach disorders.

granulation. The formation of granule-like masses of flesh on the surface of a wound during the healing process; also one of the granules developing in this process.

gravel. Small masses of earthy minerals formed in the kidney and passed through the ureter.

gravid. Pregnant. Used in connection with pregnant uterus (**gravid uterus**). **gravida:** a pregnant woman. **gravidity:** pregnancy.

groin. The lower lateral part of the abdominal wall; the inguinal region; the crease between the lower abdomen and thigh.

gumma. A soft tumor present in late tertiary (third-stage) syphilis.

H

helio. A prefix meaning sun. **heliohygiene:** sun-baths for health rather than for the correction of disease, as in **heliotherapy**.

hema. A prefix denoting the blood; as **hematemesis:** vomiting of blood; **hematoma:** a blood-tumor; **hematosalpinx:** a retention of blood in the Fallopian tube; **hematuria:** the passage of blood or blood elements in the urine.

heml. A prefix denoting one-half; as **hemiplegia:** paralysis of one-half of the body; **hemicrania:** migraine, sick headache (which is one-sided).

hemo. A prefix meaning blood; as **hemoglobin:** the coloring matter of the red corpuscles, of which iron is an essential component; **hemoptysis:** the spitting of blood; bleeding from lungs or bronchi; **hemorrhage:** the escape of blood from artery or vein, especially when profuse; **hemostasis:** 1. The stoppage of the blood current; 2. The arrest of hemorrhage; **hemorrhagic diathesis:** hemophilia, or bleeder's disease.

hepatic. Relating to the liver. **hepatitis:** inflammation of the liver.

hernia. A rupture; the protrusion of a part through a membrane that normally contains it.

herpetic. Pertaining to or suffering from herpes.

Hippocratic facies. A facies depicting impending death: hollow cheeks and temples, sunken eyes, relaxed lips and leaden complexion.

Hippocratic oath. "An oath demanded of the young physician about to enter upon the practice of his profession, the composition of which is attributed to Hippocrates." No such oath is demanded now; but if all physicians lived up to the oath or its demands the profession as a whole would be better for it.

homeopathy. A system of medicine founded by Samuel Hahnemann, and based upon the belief that *like cures likes*; that is, that drugs that will cause certain symptoms in a normal person will, when taken in extremely fine doses, cure those symptoms in disease.

homosexual. 1. Attracted erotically to one of the same sex. 2. One who is attracted sexually to one of the same sex.

hormone. A chemical substance elaborated in a ductless gland and absorbed into the blood where it serves as a messenger that stimulates or retards some other ductless gland or some process.

hydriatric. Pertaining to water treatment; hydrotherapeutic; hydropathic. **hydriatrist:** one versed in the use of water for healing purposes. **hydric:** hydriatric.

hydro. A prefix denoting water; as **hydropericardium:** an excess of fluid in the pericardium; **hydrothorax:** accumulation of serous fluid in the pleural cavity.

hydropathy. The treatment of disease by water. This term is used now by scientists more to apply to the unscientific practice of water treatment, hydrotherapy being the

term employed for the proper use of water in treatment.

hydrotherapy, hydrotherapeutics. The use of water liberally, internally and externally and by various methods, for the relief and cure of disease. **hydrotherapist, hydrotherapeutist:** one versed in the proper use of water for treatment of diseases.

hydroxide. Hydrogen and oxygen combined with a basic mineral, forming the alkali.

hyper- A prefix denoting above the normal, excessive. **hyperacidity:** excessive acidity of the gastric juice. This should not be confused with acidosis. **hyperemesis:** excessive vomiting; **hyperemesis gravidarum:** the uncontrollable vomiting of pregnancy; **hyperemia:** congestion; **hyperesthesia:** excessive sensibility to sensory stimuli; **hyperpyrexia:** extremely high fever.

hyperplasia. An increase in the various elements composing a tissue (not a tumor formation).

hypertrophy. Increase in size, but not in number, of the various elements composing a tissue.

hypo- (and hyp-). Prefix denoting below normal, deficient; as **hypogastrium:** the lowest central region of the abdomen.

hypochondriac. 1. Below the lowest ribs. 2. A person with hypochondriasis. **hypochondriasis:** morbid anxiety regarding the health; also called **hypochondria**.

hysterectomy. Surgical removal of the uterus (*hyster*).

hystero- A prefix denoting the uterus, or hysteria. **hysterocele:** hernia of the uterus. **hysterodinia:** pain in the uterus. **hystero-genic, hystero-genous:** causing hysteria. **hystero-genic areas or zones or points:** various small points on the body surface, pressure of or contact with which gives rise to attacks of hysteria. **hysteroneurosis:** a neurosis caused by disease of the uterus.

I

icterus. Jaundice.

ileum. The third portion of the small intestine, attaching to the cecum, or beginning of the large intestine. **ileocecal valve:** the valve between the ileum and the cecum to prevent back-flow of the intestinal contents.

ileus. 1. A kink in the bowel. 2. Severe cramps due to intestinal obstruction.

ilium. 1. The flank. 2. The flank-bone. **iliac:** pertaining to the ilium.

impaction. A condition, or the process, of being wedged or packed closely. Often used in relation to extreme constipation (an *impacted bowel*), and an *impacted tooth*, especially a molar.

impingement. A pinching, or a pressure upon. Used mainly in relation to nerves, pressed upon (*impinged*) by vertebrae or ligaments.

inanutition. Weakness from lack of food or from defective assimilation.

incontinence. Inability to control discharge of body wastes, especially urine and feces.

incubation, period of. The period between the time of infection and the appearance of the first symptoms of the disease; the latent stage.

indican. A poisonous protein decomposition product formed by bacteria in the bowels, but which may be absorbed and excreted in the urine.

induration. 1. An abnormally hard spot or area. 2. The process of hardening.

in extremis. At the last extremity; at the point of death.

infra-red. Beyond the red end of the spectrum, noting the invisible heat rays.

ingesta. Food and drink taken into the body.

innervation. The distribution of nerves in a part.

inoculation. Introduction of a virus of a disease into the body, through a surface lesion or by hypodermic, to produce a mild disease and thereby render immunity to a specific disease. (That is the *intention* or *expectation*.)

inspection. Examination of a patient by sight.

inspiration. The act of drawing air into the lungs.

inspissated. Thickening by evaporation or absorption of fluid, as *inspissated bile*: that which is more concentrated than normal.

integument. The skin.

inter- A prefix meaning between, amid, among; as **intercostal:** between the ribs (*costa*); **intermenstrual:** between menstrual periods

intestinal flora. See FLORA, INTESTINAL.

intra- A prefix denoting inside, within; as **intraabdominal:** within the abdomen. **intracranial:** within the skull or cranium. **intramuscular:** within the structure of muscle. **intrauterine:** within the uterus.

intractable. Stubborn; obstinate; not easily managed. Often said of a dis-

ease that does not yield to treatment.
introtitus. The entrance into a canal or hollow organ, as the vagina.

intubation. The insertion of a tube; specifically, the insertion of a tube into the larynx through the throat to permit breathing in case of diphtheria, edema, or scar contraction that prevents normal breathing.

intumescent. Swelling; enlarging. **intumescent rhinitis:** a non-inflammatory condition of the mucous membrane of the nose in which it swells and closes the lower nostril while lying on one side.

inunction. 1. The rubbing of the skin with an ointment. 2. The ointment used.

in utero. Within the uterus; as yet unborn.

invagination. The telescoping of one part into another part of the same thing, in the manner of a pouch, as with the intestine.

invasion. The onset or beginning of a disease. The period of invasion follows the period of incubation in infectious diseases.

irradiation. The exposure of the body or part of the body to the rays of sunlight, sunlamp, heat, light, radium or x-rays for the purpose of diagnosing or treating a disorder.

irrigation. The washing or act of washing of a cavity or surface with flowing water or other fluid.

itch-mite. The parasitic mite that causes scabies.

-itis. A suffix denoting inflammation.

J

jactitation. Tossing to and fro in acute illness. Also called jactation.

jail-fever. Typhus fever.

jaundice. Yellowness of skin and eyes from absorption of bile-pigments.

jerks. St. Vitus's dance or any form of tic.

jigger. A mite that burrows beneath the skin and causes pronounced itching. Usually called **chigger**.

joint-mouse. A loose cartilage in a joint.

jugular. Relating to the throat or neck (*jugulum*).

jumps. 1. A nervous twitching. Jerks. 2. Delirium tremens.

June cold. Rose-cold.

junket. Milk curdled by rennet.

K

keloid. An excessive growth of connective tissue resulting from an irritation, especially from a scar.

keratitis. Inflammation of the cornea of the eye.

kinesiatrics. The scientific application of physical movements for the correction of disease or abnormalities. **kinesiology:** the science of the therapeutic use of physical or muscular movements. Also called **kinesiotherapy**.

king's evil. Scrofula. So called because of the belief at one time that only the touch of a king could cure it.

Klieg eye. Severe conjunctivitis due to exposure to intense light and rays from lamps used in the taking of motion pictures.

knee-jerk. The forward kick of the foot when the patellar ligament is struck with the leg flexed; the patellar reflex. A diagnostic sign.

knee-chest position. The genupectoral position, on knees and chest.

Koch's bacillus. The bacillus supposed to cause (at least it is associated with) tuberculosis; bacillus tuberculosis.

Koplik's spots. Minute red spots with bluish-white tiny specks in their center appearing on the mucous membrane of the mouth before the eruption of measles. They are considered a positive indication (pathognomonic) of the disease.

koumiss, kumiss. A fermented drink made from milk. Sometimes applied to simple curdled milk or a drink made from this.

kyphosis. Backward curvature of the spine, causing the body to bend forward.

L

labium. A lip or lip-shaped structure.

lac. Latin for milk. Milk or milk-like substance.

lactase. An enzyme found in the intestinal juice which digests milk-sugar.

lacteal. 1. Relating to or resembling milk. 2. A lymph-vessel that takes up chyle from the intestines.

lactic acid. An organic acid formed by bacterial fermentation, found in sour milk and in sauer kraut.

lacto-dextrin. A mixture of milk-sugar and dextrin used to encourage the growth of acidophilus bacteria in the intestines.

lactose. Milk-sugar.

lacto-vegetarian. A vegetarian who also uses milk and milk products.

lancinating. Tearing, shooting, sharp, cutting. Said of a pain.

- lanolin.** Refined wool-fat. Used as a base for ointments.
- lanugo.** The fine hairs on the body of the fetus, shed shortly before or after birth.
- laparotomy.** Incision (surgical) into the abdominal wall; celiotomy; abdominal section.
- laryngismus stridulus.** Sudden spasm of the larynx in children, with a crowing inspiration.
- lavage.** A washing out or an irrigation of any hollow organ. Used especially in reference to irrigating the stomach.
- lecithin.** A fat containing phosphorus, found in the brain and in many vital tissues.
- legume.** A member of the bean and pea family. The seeds of legumes are rich in protein.
- lesion.** 1. A hurt or wound. 2. A local degeneration. 3. One of the local patches in a skin disease.
- lethal.** Fatal; producing death.
- leucocyte.** A white blood-corpuscle.
- leucocytosis:** the presence in the blood of an unusually large number of leucocytes, as in infections. **leucocyte count:** determining the number of leucocytes per cubic millimeter and in relation to the red blood-corpuscles; a **differential count** is the determination of the percentage of each variety of leucocyte, there being different kinds.
- levulose.** A simple sugar of the same composition as dextrose, but rotating light to the left instead of to the right.
- libido.** Sexual desire, either conscious or unconscious. Also, creative energy.
- ligate.** To tie. **ligature:** a thread or wire used to tie a part, as a blood-vessel, or a wound or operation incision.
- light year.** The distance that light, at the rate of 186,000 miles a second, will travel in one year. It is more than 63,000 times the distance from the earth to the sun.
- lipase.** An enzyme in the pancreatic juice which digests fat.
- lithemia.** The presence of excess uric acid in the blood. **lithiasis:** the uric-acid diathesis.
- lobule.** A small lobe; lobulus.
- lochia.** Vaginal discharge following childbirth.
- lordosis.** Forward curvature of the spine, causing the body to bend backward. Swayback.
- lucid interval.** A period of sanity between attacks of insanity.
- lues.** A plague or pestilence. Specifically, a euphemistic term for syphilis.
- luetie:** relating to syphilis.
- lumbar.** Relating to the loins.
- luxation.** Dislocation. **subluxation:** a partial dislocation.
- lymph.** The fluid contained in the lymph-vessels. **lymphatic:** 1. Relating to lymph. 2. A vessel of the lymphatic system. 3. A temperament indisposed to physical or mental exertion, the tissues being of loose texture, and with it going a colorless complexion.
- lysis.** 1. The sudden abatement of symptoms in an acute disease, as distinguished from crisis. 2. The destruction of certain cells, as blood cells and bacteria, by a special destructive agent (**lysin**).

M

- macerate.** To soften by soaking. **maceration:** the softening of a solid body or substance by continued soaking.
- mackintosh.** A waterproof cloth, so made by special treatment with rubber.
- macro-** A prefix denoting large; as **macroglossia:** abnormally large tongue; **macroscopic:** large enough to be seen by the eye unaided.
- macula, macule.** A spot, blemish or stain not elevated above the skin surface. **macular:** relating to or having macules.
- magnesium.** An alkaline mineral found in the bones along with calcium, to which it is related.
- mal.** Illness; disease; evil; abnormal. **grand mal:** major epilepsy. **mal de mer:** seasickness. **petit mal:** minor epilepsy.
- malic acid.** An organic food acid found in many fruits, especially in apples.
- malocclusion.** Imperfect fitting of the grinding surfaces of teeth.
- malposition.** Improper or abnormal position.
- malt.** The sprouted barley grain in which the starch has been changed into malt-sugar.
- maltase.** An enzyme in the intestinal juice which changes maltose into glucose.
- maltose.** Malt-sugar.
- mamma.** The breast; mammary gland. **mammary:** relating to the breast.
- mammitis.** Inflammation of the breast; **mastitis.**
- manganese.** An alkaline mineral found in the body, in minute quantities.

marasmus. Progressive wasting, especially in infants and young children, not due to some discoverable specific disorder.

mastitis. Inflammation of the mammary gland or breast.

mastoiditis. Inflammation of the mastoid cells (back of the ear).

matrix. 1. The portion from which a tooth or nail grows. 2. The uterus.

maxillary. Pertaining to the upper jaw (maxilla).

meatus. The external opening of a channel; as *meatus urinarius*: the external opening of the urethra, male or female.

Mechanical Physcultopathy. A term coined by Bernarr Macfadden to include the operator-given manipulations illustrated and described in Volume VI. Now discarded.

meconium. Fecal matter discharged by a new-born baby.

medullary. Pertaining to the marrow, or the spinal cord, or the medulla oblongata, the part of the spinal cord attached to and continuous with the brain.

megrim. Sick headache; migraine.

meno-, and mens-. Prefixes referring to the menses (menstruation). **menopause:** the permanent cessation of menstruation; change of life. **menorrhagia:** profuse menstruation. **menorrhagia:** painful menstruation; dysmenorrhea. **menorrhea:** normal menstruation; sometimes used for menorrhagia also. **menosepsis:** blood-poisoning resulting from absorption of retained menstrual discharge. **menses:** periodic discharge of a uterine bloody fluid. **menstrual:** relating to the menses. **mensual:** monthly. **menstruation:** menses.

mercury-arc. The arc of flame formed between filaments bathed in mercury vapor.

metabolism. The sum total of chemical changes or life processes always taking place in living organisms. It consists of a constructive phase, or **anabolism**, and a destructive phase, **catabolism**. More specifically, the rate of bodily oxidation.

metastasis. The transfer of disease from one part to another, or the transporting of infecting or contaminating substances to another part and the appearance there of a condition similar to the original.

metritis. Inflammation of the uterus (*metra*).

micturition. Urination; the passing of urine, or emptying the bladder.

modality. Used especially in electro-

therapy to denote the form of electricity or adaptation of electrical current to be used.

molecule. A unit of matter; the smallest part of any element that retains identity. It may be composed of one or many atoms.

morbus. Latin for disease. Used in connection with another word denoting the nature of the disease; as *cholera morbus*.

mucin. A form of protein secreted by mucous glands.

mucosa. Mucous membrane.

mucous. Relating to mucus or membranes secreting mucus.

mucus. The viscid watery secretion of glands in the mucous membranes. Saliva, for example, is mucus containing digestive ferments.

multipara. A woman who has borne several children.

murmur. A gentle blowing sound heard upon auscultating the heart or lungs or blood-vessels. Specifically, a functional sound of abnormal nature heard upon auscultating the heart.

muscle meat. Substance of the voluntary muscles (also the heart, which is composed of involuntary muscles), as distinguished from liver, kidneys, brains and other organs eaten as meat.

musicotherapy. The treatment of disease, especially nervous or mental, by music.

mutism. The state or condition of being without the power of speech. **deafmutism:** mutism due to congenital or early deafness.

myo-. A prefix to many words, relating to muscle; as *myocardium*: the heart-muscle; *myoma*: a muscle tumor. *myosin*: the chief protein of meat.

N

narcolepsy. A condition characterized by brief epileptiform attacks of deep sleep. Also minor epilepsy.

narcosis. A benumbed state, stupor, unconsciousness or anesthesia produced by a **narcotic** (sleep-producing) drug.

nares (ná'rēez). Nostrils. **naris:** one nostril.

naso-. A prefix denoting nose; as *nasopharynx*: the portion of the pharynx above the palate (where the nasal cavities terminate).

nauseant. Producing nausea, or sickness at the stomach. Nauseous.

necrosis. Mortification or gangrene; local death. **necrotic:** relating to necrosis.

Neisserian infection. Gonorrhea, so called because Neisser first discovered the germ of gonorrhea.

neoplasm. A new growth; a tumor.

nephros. Greek for kidney. **nephroptosis, nephroptosis:** a downward displacement of the kidney. **nephritis:** inflammation of the kidney.

nerve. 1. A remedy to reduce nerve irritability yet increase nerve-force. 2. A nerve sedative.

neur-. A prefix denoting nerve or nerves; as **neural:** relating to some part of the nervous system. **neurodynia:** nerve-pain, neuralgia. **neurologist:** one specializing in the treatment of nervous diseases. **neuropath:** one predisposed to or suffering from nervous disorders. **neuropathic diathesis:** an unstable or over-irritable nervous system, inherited or congenital in origin. **neurosis:** a nerve disorder functional in nature, without abnormality of the nerve-tissue. Also any form of disorder of the nerves. **neurotic:** one suffering from a neurosis; relating to a neurosis.

nevus. A birthmark. A pigmented patch of skin, elevated or not.

nidus. A nest; point of origin of a disease process.

nitrogen. A chemical element essential to life, found in all protein substance. **nitrogen balance:** condition of the body when it is neither gaining nor losing nitrogen.

nodule. A small node, knob or swelling.

non compos mentis. Of unsound mind.

non-viable. Incapable of living; said of a newborn baby.

nostrum. A patent medicine; a medicine whose ingredients are kept secret; a quack medicine.

nucha. The nape of the neck.

nucleoprotein. A form of protein in the nucleus of a cell.

nucleus. 1. The differentiated mass in the center of a cell that seems to be the center of functional activity of the cell. 2. A mass of gray matter or group of cells in the central nervous system, especially in the brain.

nullipara. A barren woman, or one that has never borne children.

nutmeg-liver. A contracted (cirrhotic) liver.

nympha (plural, **nymphae**). One of the labia minora of the female external sexual organs. **nymphomania:** morbid and uncontrollable sexual desire in women; corresponding to satyriasis in men.

nystagmus. Continuous oscillation or rolling of the eyeballs.

O

objective symptoms. Those discovered or discoverable upon examination. (Compare with subjective symptoms.)

obstetrics. The branch of medicine devoted to the care of the woman during pregnancy, childbirth, and the puerperal (lying-in) period. **obstetrician:** a physician trained or specializing in obstetrics.

obstipation. Intractable constipation.

occlusion. Closed, or the act of closing.

occupation neurosis. Professional neurosis; a nervous disorder due to one's occupation.

ocular. Pertaining to the eye.

oedema. The same as edema.

olein. The thinner fraction of beef fat, the basis of oleomargarine.

-oma. A suffix denoting a tumor or neoplasm; as **myoma:** a tumor of or in muscle tissue.

omentum. A fold or double fold of peritoneum passing from the stomach to another abdominal organ.

oöpharitis. Inflammation of an ovary.

ophthalmia. Severe inflammation of the eye (from Greek *ophthalmos*, eye).

opisthotonos. Tetanic spasm which bends the head and feet backward.

opotherapy. Organotherapy.

orchitis. Inflammation of the testicle (from Greek *orchis*, testicle).

orifice. An opening or aperture. **orificial surgery:** a system of treatment consisting of dilating or otherwise treating the orifices (especially the anal orifice) for the relief or correction of abnormal conditions elsewhere, through the theory that the nerve-centers of these orificial regions reflexly cause change in the functions throughout the body.

orthodontia. The straightening of irregular teeth.

orthopedics. The branch of surgery dealing with defects of the spine and joints, and the correction of these and of deformities.

orthopnea. Ability to breathe normally or comfortably only when standing or when seated, not when reclining.

osmidrosis. Foul perspiration; bromidrosis.

ostealgia, ostalgia. Pain in a bone; osteodynia.

osteitis, otitis. Inflammation of bone.

osteomalacia. Gradual softening of bone, occurring usually in women, and especially during pregnancy, as a result of a demineralized diet.

osteomyelitis. Inflammation of bone-marrow.

otitis. Inflammation of the ear.

oviduct. The Fallopian tube; the tube leading from the vicinity of the ovary to the cavity of the uterus.

ovulation. The escape of a ripe ovum from the Graafian follicle in the ovary. **ovum:** the egg or female sexual cell.

oxidation. The process of uniting with oxygen chemically.

oxidize. To unite with oxygen.

oxygenation. Impregnated or saturated with oxygen. Used especially in regard to aeration of the blood in the lungs.

P

pabulum. Food; nutriment.

pack. 1. A sheet or part of a sheet wrapped about the body or part of the body of a patient. It may be wet or dry, hot or cold. 2. To fill or stuff, as to pack a wound, or to pack the uterus or vagina. **packing:** 1. the material used to pack (in 2, above). 2. The act of filling a cavity with a pack. 3. The act of applying a therapeutic pack.

palliative. 1. Affording relief but not curing. 2. A relieving agent.

palmar. Relating to the palm of the hand.

palmitin. A fat found in palm oil.

palpebra. The eyelid. **palpebral:** relating to the eyelid.

pandemic. A widespread epidemic; or noting such, as a pandemic disease.

pandiculate. To stretch. **pandiculation:** stretching.

papilla. 1. The breast nipple. 2. Any nipple-like projection.

papule. A small elevation of the skin, usually conical containing no fluid; a pimple. **papular:** relating to or having papules.

paraplegia. Paralysis of both lower extremities and the lower part of the body.

parathyroid glands. Small bean-sized bodies on the lobes of the thyroid gland, having a very necessary internal secretion.

paresis. 1. Partial paralysis 2. General paralysis.

paresthesia. Abnormal sensation.

parturient. Relating to childbirth. **parturition:** childbirth; labor.

pathogenic. Causing disease.

pathognomonic. A sign or symptom indicating a certain disease.

pectoral. Pertaining to the chest (pectus).

pediatrics. The science of children's diseases.

pedicle. 1. The stem of a tumor. 2. A part of a vertebra.

peduncle. A stem or supporting part, as of a tumor.

pellagra. A deficiency disease caused by lack of vitamins A and B and lack of sufficient protein (the present theory regarding the disease).

pentosan. A carbohydrate with five carbon atoms.

pepsin. The enzyme of the gastric juice which digests protein.

peptone. An intermediate substance in protein digestion formed by the action of pepsin.

percussion. 1. Striking with fingers or special instrument in examination to determine the density of a part. 2. Tapping movements in massage. 3. A forcible stream of water, in a special hydropathic treatment; a douche, externally applied.

peri- A prefix meaning around or about; as **pericardium:** the sac enclosing the heart; **periosteum:** the tough membrane which covers all the bones; **peritoneum:** the serous membrane lining the abdominal and pelvic cavities and covering or partially covering the organs.

perineal body. A wedge-shaped mass of fat and fibrous tissue between the rectum and urethra in the male and between the rectum and vagina in the female. **perineum:** the surface portion or base of the perineal body.

periphery. The surface or outer part.

peristalsis. The worm-like movement of the intestines for forcing their contents onward.

permeable. Capable of being passed through, by liquids or gases.

pertussis. Whooping-cough.

pessary. 1. An instrument placed in the vagina to support a prolapsed uterus.

2. A medicated vaginal suppository.

petit mal. Minor epilepsy; a mild form of epilepsy.

petrissage. A massage movement in which muscles are kneaded.

phagocyte. A cell that destroys bacteria or injurious cells. **phagocytosis:** the destruction of microorganisms by phagocytes.

phlebitis. Inflammation of a vein.

phlegm. Mucus. Especially thick, viscid mucus coming from the throat.

phlegmasia. Inflammation with fever, especially angry inflammation.

phlegmasia alba dolens: inflammation of the femoral (thigh) vein

- following childbirth, due to thrombosis; milk-leg.
- phthisis** (ty'sis). 1. A wasting or atrophy. 2. Specifically, tuberculosis of the lungs.
- pilosity**. Hairiness; excessive growth of hair, or hair in abnormal locations.
- pitting**. The depression remaining after pressure upon edematous skin.
- pituitrin**. A product of the posterior lobe of the pituitary gland.
- placenta**. The after-birth. **placenta previa**: the development of the placenta over or partially over the uterine entrance, complicating childbirth.
- plantar**. Referring to the sole of the foot (*planta*).
- plasma**. The fluid part of the circulating blood. (*Serum* is the fluid part of the blood after coagulation)
- pledget**. A small tuft of cotton or wool.
- plethora**. An excess of blood generally, not locally (which is *congestion*).
- pleura**. The serous membrane lining the chest and covering the lungs
- plexus**. A network. It may be of nerves, veins or lymphatics.
- pneum** (a or o)-. A prefix denoting air or lungs; as **pneumogastric**: relating to the lungs and stomach, noting especially the pneumogastric or vagus nerve (the tenth cranial nerve).
- pock**. A pustule; specifically, one of the lesions of smallpox.
- poly-**. A prefix denoting many; as **polyandry**: having two or more husbands at the same time; **polygamy**: having two or more wives at the same time; **polyneuritis**: inflammation of the nerves in general, caused by lack of vitamin B; **polyphagia**: gluttony, excessive eating; **polysaccharide**: a complex carbohydrate, such as starch; **polyuria**: profuse urination.
- polypus**. An outgrowth, or a pedicle, of mucous membrane. A **polyp**.
- postdrome**. A symptom occurring during the gradual correction of a disease. A naprapathic term.
- potable**. Drinkable; fit to drink.
- premonitory symptoms**: those which indicate the approach of a certain disease. Prodromal symptoms.
- prepuce**. The foreskin of the penis or of the clitoris.
- presentation**. The part of the fetus appearing first in the birth canal at childbirth
- prevention**. The prevention of pregnancy; contraception.
- primigravida**. A woman who is pregnant for the first time or who has had but one child.
- primipara**. A woman who has had but one child.
- process**. 1. An action or function. 2. A projection or prominence.
- prodrome**. An early symptom; a premonitory symptom.
- prognosis**. A prediction as to the probable outcome of a disease.
- prolapse, prolapsus**. The falling down or sinking of an organ below its normal level or position; ptosis.
- proliferation**. Rapid and repeated production of new cells or of offspring.
- pronation**. The turning of the forearm so that the palm looks backward (when the arm is down) or downward (when the arm is forward).
- prone**: 1. noting the hand as above. 2. Noting the body when lying face downward. See **SUPINE**.
- prophylactic**. 1. Preventing disease; protecting from disease. 2. That which protects from disease. **prophylaxis**: 1. the prevention of disease; guarding against disease. 2. Preventive treatment.
- prostate**. A gland in the male at the neck of the bladder, surrounding the urethra. (Not prostrate, as many call it) The prostate gland.
- proteid**. Of the nature of a protein. Protein. The use of the word proteid for protein has gradually been discontinued.
- protein**. A very complex substance which always contains nitrogen. Protein of various types forms all active living tissue.
- proton**. The nucleus of an atom, around which the negative electrons revolve; it is the positive portion of the atom.
- protoplasm**. The essential constituent of all living matter; the substance of the cell-body. Other names for it are biogen, bioplasm, cytoplasm, and sarcode.
- protozoon**. A one-celled animal of the Protozoa family.
- proximal**. The part nearest the trunk. Said of an extremity, opposed to **distal**.
- prune juice expectoration**. A dark, reddish purple fluid matter excreted in certain extreme cases of pneumonia.
- prurient**. Uneasy or itching with desire or longing, especially lewd or lascivious desire.
- pseudo-**. A prefix denoting false or spurious, or resemblance to that indicated in the remainder of the word; as **pseudocroup**; **pseudoinfluenza**; **pseudomania**; **pseudoparalysis**; **pseudotyphoid**.

psychasthenia. A mild psychosis or mental affection.

psychiatry, psychiatrics. Treatment of mental diseases.

psychoneurosis. A minor mental disorder, not actually an insanity.

psychopath. An individual who has a psychosis or a psychoneurosis.

psychosis. Any disorder of the mind.

psychotherapy. 1. Treatment of mental disorders. 2. Treatment of mental disorders by suggestion.

psyllium (pronounced sil'i-um). The seeds of a plant of Asia that are used mainly to combat constipation. They give bulk to the intestinal contents, exude a gelatinous lubricating substance, and take up moisture, preventing excessive dryness of bowel wastes.

ptosis. 1. The drooping of the upper eyelid, not controllable, due to paralysis, brain tumor or other pathological condition. 2. A falling down or sinking of any organ. As a suffix it denotes displacement of the organ named by the main word, as **gastroptosis**: prolapsed stomach; **nephroptosis**: prolapsed kidney.

ptyalin. The enzyme in the saliva that changes starch into maltose. **ptyalism**: excessive secretion of saliva; salivation.

puerpera. A woman in childbed. **puerperium**: the lying-in period after childbirth; the period from delivery until the uterus has undergone complete involution.

pulmonary. Pertaining to the lungs; also to the artery from the heart to the lungs (the pulmonary artery), or to the opening for this artery in the right ventricle of the heart.

punctate. Having small marks or spots differing from the surrounding skin in color or elevation.

purulent. Containing or consisting of pus, or forming pus.

pye-, pyo-. Prefixes denoting pus; as **pyemia**: the presence of pus in the blood; **pyuria**: the presence of pus in the urine; **pyogenesis**: the formation of pus; **pyogenic**: pertaining to pus-formation; pus-forming; **pyosis**: suppuration.

Q

quadrant. One of the four equal divisions of the abdomen, having nothing to do with the nine divisions individually named. The quartering of the abdomen is merely for convenience in locating organs or symptoms.

quartzlight lamp. A mercury-arc lamp using fused quartz window and applicators of the same.

quickening. "Life"; the first recognizable movements of the fetus in the uterus, usually between the fourth and fifth months of pregnancy.

quinsy. Acute peritonsillar abscess.

R

racemose. Like a bunch of grapes. Said of certain glands.

rachitis. Rickets. rachitic: pertaining to or suffering from rickets.

radial. 1. Pertaining to the radius (a forearm bone). 2. Radiating, or spreading out from a common center.

reaction. An action induced by the vital resistance to some other action; increased activity from a shock or depression (temporary in effect); or decreased action from overstimulation or overexertion.

recessive. In biology, referring to a characteristic of one or the other parent which has carried through several generations and appears in a minority of descendants. The opposite of **dominant**.

recrudescence. A flaring up of symptoms or of a disease process after a period of improvement.

reflex. An involuntary movement resulting from a stimulus transmitted along an afferent nerve to a nerve center and out over an efferent nerve, bringing into action that which the nerve supplies (muscle, gland, etc.). **reflex action**.

remittent. Temporary abatement of symptoms. Opposed to **intermittent**, when the disease completely leaves the patient for a while.

renal. Pertaining to the kidney (*ren*).

rennet. The ferment used in the manufacture of cheese, derived from calves' stomachs.

rennin. A milk-curdling ferment in the stomach.

resolution. 1. A breaking-up or discontinuance of a disease, especially a fever. 2. The healing of an inflammatory area, as of a wound, without the development of suppuration, or pus.

response. The reaction of any tissue or system to stimulation.

restorative. Something, as food or medicine, which tends to restore a person to consciousness or to health or strength.

retching. Making an involuntary effort to vomit.

retina. The innermost coat and the perceptive structure of the eye, formed by expansion and special construction of the optic nerve.

retro- A prefix denoting backward or behind; as **retrodisplacement**: a backward displacement of the uterus; **retroflexion**: a curved backward bending of the uterus; **retroversion**: a straight backward turning of the uterus.

reverie. A daydream; a loose train of thought occurring in musing.

reversion. The appearance in a person of characteristics that have been dormant in immediate ancestors but existed in remote ancestors. See **ATAVISM**.

revulsive. Causing, or that which causes, a shifting of blood and lymph from one part to another, as by a counterirritant or a hydriatric procedure.

rheum. A mucous or watery discharge from the eyes, nose or sores. **epidemic rheum**: influenza. **salt rheum**: eczema. **rheumatic diathesis**: a predisposition to eczema, herpes, and certain other skin diseases.

rhinitis. Inflammation of the mucous membrane of the nose (*rhis*).

rice-water stools. Watery discharges from the bowels in Asiatic cholera and sometimes in serous diarrheas.

rigor. A chill; rigidity. **rigor mortis**: the stiffening of the body within a few hours after death.

risus. A laugh. **risus sardonicus**: the grin-like expression upon the face of a patient suffering from tetanus; sardonic grin.

rose-cold. June-cold; hay-fever in early summer.

S

sac. A pouch; a bag-like organ; a capsule or envelope. **sacculated**: having a sac or group of sacs

sacro-iliac. Relating to the sacrum and the ilium of the bony structure of the hip.

sacro-iliac articulation. The joint between the sacrum and the ilium and the ligaments involved in the connection.

sacrum. A bone at the base of the spine, formed by union of vertebrae.

salpinx (from Greek, meaning a trumpet). Fallopian tube. Also, less frequently, Eustachian tube. **salpingitis**: inflammation of a Fallopian tube.

sarcoma. A highly malignant tumor; a form of cancer.

scarf-skin. The epidermis.

scarification. The making of a number of small superficial incisions in the skin, as when preparing to vaccinate. **sclerosis.** Induration or hardening of tissue as a result of chronic inflammation.

scurf. Dandruff. Branny substance from the skin.

secundines. The afterbirth: the placenta and membranes.

sedation. The act of calming or the state of being calm. **sedative**: that which calms or soothes the nerves.

sepsis. Poisoning of the body by putrefactive material or pathological or pus-forming germs or their toxins. **septic**: relating to sepsis or putrefaction. **septicemia**: poisoning from germs or their toxins in the blood.

septum. A dividing wall or membrane. **nasal septum**: the boundary between the two nostrils.

sequel. An abnormal condition resulting from a previous disease.

serous. Relating to, producing, or containing serum: the clear fluid secreted by the membranes located internally.

shock. A profound depression of the mind or body resulting from mental or emotional or physical disturbance or injury.

sinus. 1. A cavity, recess or depression. 2. A dilated channel for venous blood, as those in the brain coverings (meninges) and in the pregnant uterus. 3. A tract leading to a pus cavity.

slough. Dead tissue separated from normal tissue.

smegma. The thick cheesy secretion under the foreskin or prepuce.

somatic. Pertaining to the body (Greek *soma*); or to the wall of the body.

soporific. Producing or tending to produce deep sleep; hypnotic.

spasm. A sudden severe involuntary muscular contraction. **clonic spasm**: spasm in which there follows immediately a relaxation. **tonic spasm**: spasm in which the muscular rigidity persists for some time. **spasmodic diathesis**: a predisposition to convulsions, particularly in early life.

spay. To remove the ovaries; to castrate a woman.

specific. 1. A disease due to a definite microorganism, as syphilis. 2. A remedy that has a specific curative action in a certain disease.

spectrum. The image or color picture formed when a beam of white light is dissolved into its constituent colors by passage through a prism.

- speculum.** A metal instrument designed for opening to view a passage or cavity of the body.
- spermatozoon.** The male germ-cell, consisting of head, neck and tail.
- spermatic cord.** The cord passing from the posterior surface of the testicle up into the abdominal region.
- sphincter.** A ring-like muscle that guards or closes a natural orifice.
- sphygmomanometer.** An instrument for measuring the blood pressure; a manometer.
- spinous.** Relating to, resembling, or having a spine or spines or spine-like bodies.
- splanchna (or o)-.** A combining prefix denoting an organ (Greek *splanchnon*); as **splanchnoptosis**, or **splanchnoptosis**: dropping of abdominal organs; **enteroptosis**; **abdominal ptosis**; **visceroptosis**.
- spondyl-.** A combining prefix denoting vertebra (Greek *spondylos*); as **spondylitis**: inflammation of one or more vertebrae. **spondylotherapy**: 1. The treatment of disease by one of the various methods of spinal manipulation 2. Specifically, treatment by percussion of the spine, for bringing into action certain reflexes for their effect upon the organs and their functions.
- stasis.** A stoppage, of blood or other fluid or of intestinal action. Often used for sluggish action, especially of peristalsis.
- stearin.** The hard fraction of beef fat.
- steapsin.** An enzyme found in pancreatic juice which acts upon neutral fats in human digestion, causing a partial cleavage into glycine and fat acid.
- stenosis.** Narrowing or contraction of a canal or duct; a stricture. Used especially for a narrowing of one of the valves of the heart.
- stercoraceous.** Consisting of or containing feces; as **stercoraceous vomiting**: vomiting of fecal matter, as in intestinal obstruction. **stercoremia**: a state of toxemia due to absorption of the products of putrefaction in a constipated bowel.
- stertor.** Snoring. Noisy breathing occurring in certain states of unconsciousness, as in coma. **stertorous**: relating to stertor; characterized by stertor.
- sthenic.** Strong; active. Said of certain disease conditions, as **sthenic fever**: high fever with strong pulse. The opposite of **asthenic**.
- stoma-.** A prefix denoting mouth; as **stomatitis**: inflammation of the mouth.
- strabismus.** Cross-eye; squint; heterotropia. **Convergent strabismus**: the usual form, with one or both eyes turned inward. **divergent strabismus**: with one or both eyes turned outward.
- strangury.** A slow and painful passage of urine, drop by drop, due to muscular contraction of the bladder and urethra.
- stricture.** An abnormal narrowing of the caliber of a duct or canal.
- stridor.** A harsh whistling sound from breathing through obstructed passages.
- stripping.** 1. Bringing the last milk from the breast by the fingers. 2. Bringing out the contents of the seminal vessels by slight friction movements along them through the rectum.
- stroke.** 1. An apoplectic seizure or sudden attack, as by sunstroke; a blow. 2. The gliding motion over the body surface in massage.
- struma.** 1. Goiter. 2. Scrofula. **strumous diathesis**: a predisposition to scrofula or glandular swellings.
- stupe.** A cloth or compress wrung from water and applied to a hurt or sore or for counterirritation.
- styptic.** 1. An astringent for stopping flow of blood. 2. Arresting hemorrhage.
- sub-.** A prefix meaning inferior, beneath, under, less than normal; as **subacute**: not acute, yet not chronic; **subcutaneous**: beneath the skin; **hypodermic**; **subfebrile**: slightly feverish; **subinvolution**: incomplete reduction of the uterus after childbirth; **submaxillary**: beneath the lower jaw; **subnormal**: below normal.
- subjective symptoms.** Those perceived by the patient, not perceptible to the physician or to another, as various sensations.
- subluxation.** A partial luxation or displacement of a bone or bones.
- sucrose.** The chemical term for cane-sugar.
- sudorific.** Causing perspiration; diaphoretic.
- suffusion.** The state of being blood-shot, or moistened.
- sumik.** Naturally curdled or soured milk whipped to a creamy consistency. Not sumac, which is a plant.
- superinvolution.** A reduction of the uterus after childbirth to less than its normal size.
- supination.** The turning of the forearm so that the palm looks forward (with the arm down) or upward (with the arm forward). **supine**: noting the

- hand as above; noting the body lying face upward. See **PRONE**.
- suppression.** 1. Complete stoppage of secretions, or excretion, as of urine. 2. Repressing or halting a symptom by medicine or by any other treatment. 3. Preventing the manifestation of desires; more properly, repression of desires.
- suppuration.** The formation of pus. **suppurative:** forming pus; suppurating.
- suprarenal.** 1. Above the kidney. 2. An adrenal gland.
- suture.** 1. A surgical stitch or seam. 2. Line of junction between adjoining bones of the cranium or face.
- symphysis.** 1. Line of junction and fusion of two bones that originally were separate. 2. The **symphysis pubis:** the junction of the pubic bones at the center of the lower abdomen.
- symptom.** Any change from normal in the course of disease. **symptom complex:** the symptoms associated with a specific disease and forming a picture of the disease. **symptomatology:** 1. The branch of medicine treating of disease symptoms (evidences of disease). 2. The total symptoms of a disease. **symptom therapy:** treating symptoms as they arise, rather than treating the disease as a whole or the individual having the disease; **symptotherapy** (a *naprapathic* term).
- synchronous.** Occurring at the same time; simultaneous.
- syncope** (pronounced *sin'ko-pe*). A swoon; fainting. Complete or nearly complete loss of consciousness from a sudden drop in blood pressure or temporary stopping of the heart contraction.
- syndrome.** The group of symptoms that form a picture of a disease. A symptom complex, or complex of symptoms, characteristic of a disease.
- synovia.** The viscid fluid of joint cavities; joint-oil. **synovial:** pertaining to, containing, or consisting of synovia; **synovial fluid:** the same as synovia; **synovial membrane:** the membrane lining a joint that secretes synovia. **synovitis:** inflammation of the synovial membrane.
- systole** (*sis'to-le*). The period of heart contraction; also the contraction itself. Opposed to diastole, or heart rest. **systolic:** pertaining to, or occurring at the time of, the systole.
- tabes** (*tā'beez*). Any wasting disorder, or progressive emaciation; usually signifying **tabes dorsalis** (locomotor ataxia). **tabetic:** affected with or relating to tabes.
- tactile, tactual.** Pertaining to touch or the sense of touch. **tactile corpuscle:** one of the oval or rounded bodies in the skin containing nerve-fibers and giving rise to the sense of touch.
- talipes.** Clubfoot.
- tampon.** A plug or ball of cotton-wool, sponge, gauze or other substance of loose nature used in a cavity or canal to absorb secretions, retard hemorrhage, or maintain a displaced organ, especially the uterus, in position, or to apply medication locally.
- taxis.** Manipulation of a part for correction, as a protruding hernia.
- tegument.** The skin.
- tendon.** A fibrous cord by which a muscle is attached to a bone.
- tenesmus.** Painful and ineffectual or practically ineffectual straining at stool or in urinating.
- tetanus.** 1. Continuous tonic spasm of a muscle; continuous complete contraction without twitching. 2. An acute disease in which tonic spasms continue and cause agonizing pains.
- tetter.** A popular name for various skin diseases, especially eczema.
- therapeutic, therapeutical.** Of or pertaining to the healing art; curative. **therapeutics:** that part of the medical science that deals with discovery and application of healing or curative remedies. **therapy:** the treatment of disease; **therapeutics;** any form of treatment. Now used mainly in combination words; as **hydrotherapy:** water-treatment.
- thermal, thermic.** Relating to heat.
- thermo-.** A prefix denoting heat; as **thermostat:** an apparatus for automatically regulating heat; **thermotherapy:** the treatment of disease by the use of heat in any form.
- thoracic.** Relating to the chest or thorax.
- thready pulse.** A rapid pulse scarcely perceptible, occurring in shock and shortly before death.
- thrombosis.** 1. The formation of a **thrombus:** a plug in a blood-vessel occluding the vessel. 2. The presence of a thrombus.
- thyroxine.** The iodine-containing chemical hormone formed in the thyroid gland.
- tic.** Any involuntary muscular contraction or twitching.
- tobaccoism.** Ill health due to excessive

T

tabacosis. Poisoned by tobacco, chiefly from inhaling tobacco dust.

use of tobacco; tobacco-poisoning; nicotineism.

terminal. Gripping intestinal pains; intestinal cramps; colic.

torsion. A twisting, or the act of twisting.

tourniquet. An instrument for compression of a blood-vessel to check hemorrhage.

toxemia. Self-poisoning from defective elimination and the reabsorption of products from retained wastes, and overeating of wrong foods. Together with enervation, the leading cause of practically all ills. **toxic:** pertaining to or suffering with toxemia.

toxic. Poisonous. Of, pertaining to or due to poisoning. **toxicity:** the quality or state of being poisonous. **toxin:** any poison caused by the action of microorganisms, or by certain abnormal cell-processes.

trance. A profound and abnormal sleep, due to hysteria or hypnosis, from which the person cannot be aroused. Catalepsy.

transudation. Passage of a fluid through a membrane. **transudate:** that which passes through a membrane.

trauma. A wound or injury. **traumatism:** 1. trauma. 2. The condition of the body resulting from an injury or wound. **traumatic:** 1. Relating to or caused by a wound. 2. A healing agent. 3. Causing healing.

trismus. Lockjaw; tetanic contractions of the jaw-muscles.

trophic. Of or pertaining to nutrition (Greek *trophe*, nourishment). **trophic nerve:** one regulating the nutrition of a part. See also **ATROPHY**.

trypsin. The enzyme found in the pancreatic juice which completes the digestion of protein.

tubercle. 1. Any small rounded nodule. 2. The lesion of tuberculosis. **tubercular:** relating to or characterized by tubercles; nodular. **tuberculous:** relating to or affected by tuberculosis. This term is best used in regard to tubercles originating from, or any reference to, tuberculosis, while **tubercular** is used for any condition marked by tubercles not tuberculous in origin.

tubes. When unmodified, the Fallopian tubes. **tubal:** pertaining to tubes, especially the Fallopian tubes.

tumefaction. A swelling; puffiness.

tussis. A cough.

twilight sleep. A state of partial sleep or narcosis produced by the administration of either morphine or narcophine with scopolamine. Used to

ease the pains of childbirth. 2. The drug combination used to induce the above state (rarely so used).

tympanites. Distension of the abdomen with gas or air.

U

ultra-red. Sometimes used for infra-red. **ultra-violet.** Invisible light rays beyond the violet end of the spectrum. These rays change ergosterol into vitamin D.

umbilicus. The navel or belly-button. **urea.** The chief solid substance in the urine, in which form nitrogen leaves the body.

ureter. The tube from which urine goes from one kidney to the bladder.

urethra. The passage through which the urine is discharged from the bladder.

urinometer. An instrument for finding the specific gravity of urine.

urticaria. Hives. **giant urticaria:** angioneurotic edema. **urticarial:** pertaining to or of the nature of urticaria.

uterine. Pertaining to the uterus: the womb.

uvula. The small fleshy body that hangs from the soft palate above the root of the tongue. **uvulitis:** inflammation of the uvula.

V

vaccina, vaccinia. A disease, local or general, resulting from vaccination, regarded as modified smallpox.

vagina. The female genital canal from the vulva to the uterine cervix. 2. Any sheath-like structure. **vaginismus:** painful spasm of the vagina, due to local hyperesthesia (sensitivity), and preventing coitus. **vaginitis:** inflammation of the vagina.

vagus. The proper name for the pneumogastric or tenth cranial nerve.

valgus. 1. Knock-knee. 2. A bow-legged person, but especially when the legs are bowed inward (knock-kneed).

varicosis. A condition of dilatation and irregular enlargement of a vein or veins. **varicosity:** varicosis; also a varix: an enlarged and tortuous vein or other vessel. **varicose:** pertaining to a varix. **varicocele:** a varicosis of the veins of the spermatic cord.

vas. A vessel. **vas deferens:** the seminal duct of the male extending from the epididymis (attached to the testicle) to the prostatic urethra, where it terminates in the ejaculatory duct.

vascular. Pertaining to or containing blood-vessels.

vasoconstrictor. 1. A nerve which, when stimulated, causes contraction of the blood-vessel it supplies. 2. Any agent that causes constriction of the blood-vessels.

vasodilator. 1. A nerve which, when stimulated, causes dilation of the blood-vessel it supplies. 2. Any agent that causes dilation of the blood-vessels.

vasomotor. Either vasoconstrictor or vasodilator, noting nerves.

vegetative nervous system. The sympathetic nervous system.

venesection. The opening of a vein for the letting of blood.

venter. The abdomen. Sometimes the uterus. **venter up:** lying on the back. **ventral:** relating to the abdomen or belly.

ventricle. Any cavity. Specifically, one of the two lower chambers of the heart, or one of the cavities within the brain.

vermicide. An agent that destroys intestinal parasites.

vermiform. Worm-like in shape. **vermiform appendix:** now called the **vermiform process** (the appendix).

vermifuge. An agent that causes expulsion of intestinal parasites, without necessarily killing them, as does a vermicide.

vernix caseosa. The fatty cheese-like substance appearing upon the body and head of the newborn child.

version. 1. A condition of the uterus in which it is in abnormal position yet not bent upon itself; as **anteversion:** a forward straight displacement; **retroversion:** a backward straight displacement. 2. A changing of position; as of the fetus in the uterus, occurring spontaneously, or by manipulation to obtain a more favorable presentation for delivery.

vertex. 1. The crown of the head. 2. The apex of the heart.

vertigo. Dizziness; giddiness.

vesical. Pertaining to the bladder. **vesicular:** pertaining to or containing vesicles.

vesicle. A small blister or bladder. A small sac containing fluid or gas.

vicious circle, or vicious cycle. The mutual intensification of two independent abnormal conditions, each tending to aggravate the other.

virus. The specific poison of a conta-

gious or infectious (any communicable) disease.

viscera. Plural of **viscus:** an internal organ. **visceral:** relating to a viscus or organ, the viscera or organs. **visceroptosis, visceroptosis:** dropping or downward displacement of the viscera or organs, especially the abdominal organs; **splanchnoptosis.**

vitamins. Organic food essentials that have not been chemically identified, the presence and effects of which are studied by animal feeding tests.

vitolize. Straightening, stretching, tensing combination movements of the neck and spine for purposes of re-awakening or increasing the energies of the body.

volvulus. A twisting or kinking of the intestine, causing obstruction.

vulnerable. Capable of being wounded or easily injured.

vulva. The external female genital organs; the labia majora and the cleft between. **vulvovaginal:** relating to the vulva and vagina; noting glands in this region.

W

Wassermann test. A test of the blood to determine the presence or absence of syphilis.

water-brash. The belching up of sour or acid substance from the stomach; brash.

wen. A sebaceous cyst, especially one on the scalp.

wet-nurse. A recently confined woman who nurses a baby not her own.

wheal. An acute local swelling of the skin, whitish or pinkish, as a result of irritation. Present in hives and from blows and stings.

white blood. A popular but erroneous term for semen.

whorl. The markings on the skin of the fingers that make finger-prints.

Y

yogurt. A semisolid cheese-like product of fermented milk containing a very active species of lactic-acid bacillus, the bulgarian bacillus.

Z

zymosis. 1. Fermentation. 2. An infectious disease. **zymotic:** relating to fermentation, or to an infectious disease.